



2024/25
ANNUAL SUBMISSION
**FOR THE DIVISION
OF REVENUE**



SUBMISSION FOR THE 2024/25 DIVISION OF REVENUE

For an Equitable Sharing of National Revenue

We, the Commissioners, hereby submit the Financial and Fiscal Commission's researched recommendations for the 2024/25 Division of Revenue in accordance with the obligations placed upon us by the Constitution of the Republic of South Africa.

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Finance Application



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ACRONYMS

AIC	Akaike Information Criterion
ArcGIS	Online Graphic Information System
ASGISA	Accelerated and Shared Growth Initiative For SA
BIG	Basic Income Grant
CBA	Cost Benefit Analysis
CCA	Climate Change Adaptation
CCM	Climate Change Mitigation
CCRB	Climate Change Responsive Budgeting
CoGTA	Cooperative Governance and Traditional Affairs
COPS	Conference of Parties
COS	Cost of Supply
COVID-19	Corona Virus Disease 2019
CPI	Consumer Price Index
CSG	Child Support Grant
CSIR	Council for Scientific and Industrial Research
DDM	District Development Model
DEA	Department of Environmental Affairs
DMRE	Department of Mineral Resources and Energy
DPE	Department of Public Enterprises
DSD	Department of Social Development
DWS	Department of Water and Sanitation
EAF	Electricity Availability Factor
EBIDTA	Earnings Before Interest, Taxes, Depreciation and Amortisation
ECD	Early Childhood Development
EM	Emerging Market
EMDEs	Emerging and Developing Economies
EPWP	Expanded Public Works Programme
FPE	Final Prediction Error
FPL	Food Poverty Line
GDP	Gross Domestic Product
GHG	Greenhouse Gasses
GHS	General Household Survey
GWh	Gigawatt Hours
HoD	Head of Department
HQC	Hannam-Quinn Criterion
IBT	Inclining Block Tariff
ICDG	Integrated City Development Grant
ICESCR	International Convention On Economic, Social and Cultural Rights
IDPs	Industrial Development Plans
IRF	Impulse Response Function
INEP	Integrated National Electrification Programme
LBPL	Lower Bound Poverty Line
LED	Local Economic Development
LGCCSP	Local Government Climate Change Support Programme
LGES	Local Government Equitable Share
LGFF	Local Government Fiscal Framework
LTSM	Learner Teacher Support Materials



MBRR	Municipal Budget Reporting and Regulation
MFMA	Municipal Financial Management Act
MIIF	Municipal Infrastructure Investment Framework
MIG	Municipal Infrastructure Grant
MISA	Municipal Infrastructure Support Agency
MTEF	Medium Term Expenditure Framework
Mt	Metric Tons
NDC	National Determined Contribution
NDEFF	National Department of Environment, Forestry and Fisheries
NDP	National Development Plan
NDPG	National Development Partnership Grant
NERSA	National Energy Regulator of South Africa
NNSFF	National Norms and Standards for School Funding
OECD	Organisation for Economic Co-operation and Development
OPG	Older Persons Grant
PED	Provincial Education Department
PESTLE	Political, Economic, Social, Technological, Legal and Environmental
PCGB	Paris Collaborative on Green Budgeting
PFMA	Public Finance Management Act
PPI	Producer Price Index
PSET	Post School Education and Training
SAA	South African Airways
SABC	South African Broadcast Corporation
SALGA	South Africa Local Government Association
SAPO	South African Post Office
SARB	South Africa Reserve Bank
SASSA	South African Social Security Agency
SA-SAMS	South African School Administration and Management System
SC	Schwartz Criterion
SEIS	Socioeconomic Impact Study
SITA	State Information Technology Agency
SNE	Special Needs Education
SOEs	State Owned Enterprises
SOHCs	State Owned Holding Companies
SRD	Social Relief of Distress Grant
TEUs	Twenty-Foot Equivalent Units
UBIG	Universal Basic Income Grant
UBPL	Upper Bound Poverty Line
UNDP	United Nations Development Programme
USDOE	United States Department of Education
VAR	Vector Autoregressive

FOREWORD

The Submission for the Division of Revenue 2024/25 is tabled by the Financial and Fiscal Commission (FFC) in terms of section 214(1) of the Constitution of the Republic of South Africa, 1996 (as amended), Section 3 of the Financial and Fiscal Commission Act, 1997 (Act No. 99 of 1997) Section 9 of the Intergovernmental Fiscal Relations Act, 1997 (Act No of 1997) and Section 4 (c) of the Money Bills and Related Matters Act, 2009 (Act No. 9 of 2009) (as amended). The FFC is an independent, juristic constitutional institution that reports directly to Parliament and provincial legislatures.

The vision of the Commission is to provide influential advice on equitable, efficient, and sustainable intergovernmental fiscal relations between the national, provincial, and local spheres of government. This relates to the equitable division of government revenue among the three spheres of government and the related service delivery of public services to South Africans.

Through focused research, the Commission aims to provide proactive, expert, and independent advice on promoting the intergovernmental fiscal relations system, using evidence-based policy analysis to ensure the realization of constitutional values. The Commission reports directly both to Parliament and provincial legislatures, who hold government institutions to account. Government must respond to the Commission's recommendations and the extent to which they will be implemented at the tabling of the 2023 Medium term Budget Policy Statement in October 2023, leading up to the annual budget for the 2024/25 financial year to Parliament and Legislatures.

The Commission takes the opportunity to thank the erstwhile Commissioners, Professor Aubrey Mokadi and Mr Mandla Nkomfe, whose terms expired on 31 March 2023, and who provided invaluable support and direction in the compilation of this Annual Submission for the Division of Revenue 2024/2025.

We, the undersigned, hereby submit the Financial and Fiscal Commission's submission with recommendations for the 2024/25 Division of Revenue in accordance with the obligations placed upon us by the Constitution of the Republic of South Africa.

For and on behalf of the Commission.



Dr Patience Nombeko Mbava
Chairperson

THE FINANCIAL AND FISCAL COMMISSION

The Commission is a body that makes recommendations and advises organs of state on financial and fiscal matters. As an institution created in the Constitution, it is an independent, juristic person subject only to the Constitution itself, the Financial and Fiscal Commission Act, 1997 (Act No. 99 of 1997), as amended, and relevant legislative prescripts – and may perform its functions on its own initiative or on request of an organ of state.

The vision of the Commission is to provide influential advice for equitable, efficient, and sustainable intergovernmental fiscal relations between the national, provincial, and local spheres of government revenue among the three spheres of government and to the related service delivery of public services to South Africans.

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The Commission consists of women and men appointed by the President: the Chairperson and Deputy Chairperson, three representatives of provinces, two representatives of organized local government, and two other persons. The Commission pledges its commitment to the betterment of South Africa and South Africans in the execution of its duties.



INTRODUCTION

The South African economy is confronted by a series of global and domestic challenges that are weighing heavily on public finances. These challenges include, amongst others, slowing global growth, geopolitical tensions, rising inflation, acute power challenges, inefficiencies in state-owned enterprises (SOEs), high unemployment, and climate change.

They also highlight the importance of inclusive growth, which has become central to economic development, seeking to raise living standards and generate more opportunities across society. A healthy and financially sound fiscus is required to achieve inclusive growth. This means that South Africa's fiscal situation, riddled with governance issues and constrained by a resource-depleted budget, must be addressed.

In the last three years, the COVID-19 pandemic overwhelmed global health systems, disrupted economic activity worldwide, and shaped public finances in most countries. While it recedes, it continues to have a bearing on the global economy. One of the most enduring legacies of the pandemic has been rapidly rising prices, particularly food and energy, that took effect in the early phases of the pandemic and subsequently accelerated due to the war between Russia and Ukraine.

After an extensive phase of low interest rates and low inflation, the global economy is moving into a period characterized by high inflation and high levels of both public and private debt. In South Africa, increased global food and fuel prices have resulted in inflation rates overshooting the 3-6 per cent inflation target band set by the South African Reserve Bank (SARB). Headline inflation reached a 13-year peak of 7.8 per cent in July 2022.

The resultant upsurge in global inflation since 2021 is the most severe in over three decades and has triggered an unprecedented policy response. In South Africa, the policy response from the SARB has been relentless, culminating in nine consecutive interest rate hikes by March 2023. This steep hiking cycle has put pressure on middle-class consumers and in turn hamstrung consumer demand, dampened investment and, stifled economic growth. It also implies that government policies require a precise appreciation of how inflation impacts various societal groups. The exploration of how fiscal policy should respond to curtail inflation while supporting the vulnerable is thus critical.

South Africa is facing an unprecedented energy crisis. Eskom has responded to this crisis by instituting devastating loadshedding that is undermining the economic recovery from COVID-19 while interest rates rise in response to high inflation. In 2022, there were 200 days of loadshedding. In the first quarter of 2023, there was only one day of no loadshedding and increasingly prolonged blackouts have become the norm. A swift resolution of the electricity crisis is urgently warranted entailing reforms in the energy sector and a massive turnaround of Eskom. However, immediate action is also required to eradicate inefficiencies in other major SOEs, particularly those operating in the transport and logistics sectors.

This submission's thematic focus is **"Improving service delivery and inclusivity in an environment of expenditure moderation"**. It commences by examining inflation's impact on public finances before evaluating the effect of SOEs and social security on the sustainability of public finances. It also tackles vital subnational issues on learner teacher support materials (LTSM) and learner transport; climate change; spatial inequalities, local economic development (LED); municipal cost recovery, and the affordability of basic services. The submission consists of six chapters divided into two parts: Part 1, comprising chapters

1 and 2, focuses on financial and fiscal matters, and Part 2, comprises four chapters concentrating on sub-national issues.

Over the past two years, a very steep rise in global inflation triggered the sharpest global monetary policy tightening in four decades. Whereas global inflation has decelerated since then, core inflation, excluding the volatile energy and food components, has not yet peaked in most countries. Against this background, **Chapter 1** investigates the sources and spillovers of global inflation and fiscal sustainability. In addition to examining international inflation trends, sources, and the international inflation spillovers on the South African economy, the chapter also investigates how inflation shock affects South Africa's public debt dynamics using a Vector Auto-Regressive (VAR) model.

Understanding the rationale behind direct state participation in markets through SOEs is critical to designing appropriate SOE reform policies. This postulation is the basis of **Chapter 2**, which focuses on the impact of SOEs and the basic income grant on fiscal sustainability. In addition to reviewing the state of South Africa's major SOEs, assessing the risks they pose to fiscal sustainability, and examining possible SOE reforms, this chapter also determines the fiscal feasibility of a basic income grant in South Africa.

Providing LTSM is vital to improving educational outcomes, thus necessitating the need to understand how policy, funding and access to this essential educational input can be improved. Scholars also face severe challenges on their commute to and from school, including long distances, the environment, personal safety, worse academic performance due to fatigue, and textbook damage. Scholar transport is a necessary and integral part of the right to basic education, but learners who cannot access transport suffer, particularly those in rural South Africa.

The focus of **Chapter 3** is on reviewing LTSM and learner transport in South Africa. With respect to LTSM, this chapter assesses the policy and funding regime underpinning the provision of LTSM in South Africa. It also conducts an institutional analysis of the factors that hamper the effective procurement and delivery of LTSM across the nine Provincial Education Departments (PEDs). Regarding learner transport, the chapter examines demand and supply dynamics for learner transport and the resultant implications of changing learner numbers in provinces. It also evaluates funding challenges faced by provinces concerning learner transport; and assesses if provinces adhere to norms, standards, and learner transport regulations.

The complex and layered challenges climate change presents demand system-wide transformative thinking, planning, and actions. Against this backdrop, **Chapter 4** assesses the response to climate change in local government. The assessment is rooted in ascertaining whether municipal plans and budgets are climate responsive and sensitive.

Stark spatial divides continue to characterise post-Apartheid South Africa, notwithstanding the government's noble efforts to reverse the damage inflicted by Apartheid by creating a unified, national regulatory framework. This prognosis provides the rationale for **Chapter 5**, that investigates spatial inequalities and the efficacy of municipal spending in driving LED. Employing municipal mapping, the chapter develops an appropriate tool to assist municipalities in their strategies for improved revenue collection and LED. The chapter utilises ArcGIS to map the areas of municipal borders to assess each municipality geographically. Illustrative data is also used to show the large spatial inequalities across South African municipalities.

The policy, and particularly the practice of cost recovery, is critical in delivering the best possible sustainable service delivery outcomes. This is the subject matter for **Chapter 6**, that concentrates on municipal cost recovery and the affordability of basic services. The chapter aims to assess the extent to which municipalities recover the costs of providing services and the relationship between cost recovery and the affordability of services. It also examines whether a municipality's socioeconomic profile affects cost recovery.

The Commission makes the following recommendations:

CHAPTER 1: ESCALATING GLOBAL INFLATION: THE SOURCES, SPILLOVERS AND FISCAL SUSTAINABILITY:

1. With respect to fiscal policy, the National Treasury should continue to focus fiscal consolidation on expenditure and revenue mix appropriate for debt reduction. This should be done by targeting primary a primary surplus to significantly reduce debt, foster economic growth and restore fiscal sustainability. Moreover, the Commission recommends that National Treasury crafts a medium term fiscal framework that must maintain long-term debt sustainability through consolidation, improving debt transparency, advancing debt management functions, and enhancing revenue collection and spending efficiency.
2. With respect to social protection, the National Treasury in conjunction with the Department of Social Development (DSD), should design a comprehensive social security programme to protect those segments of the population particularly exposed to the negative impact of rising inflation, including higher energy, fuel and food prices. In the interim National Treasury and the DSD should address the challenges of access constraints of the current social protection measures, particularly the Special COVID-19 Social Relief of Distress (SRD) Grant

CHAPTER 2: REGARDING THE IMPACT OF STATE-OWNED ENTERPRISES AND BASIC INCOME GRANT ON FISCAL SUSTAINABILITY:

1. Reducing risks from quasi-fiscal activities

In collaboration with the relevant SOE's parent departments, National Treasury should eliminate fiscal risks emanating from the imposition of quasi-fiscal burdens by avoiding policies that result in such obligations or abolishing them if they are already in place. The reduction of discretionary fiscal governance in SOEs requires the following:

- Liberalising the prices of goods and services provided by SOEs in competitive markets and regulating prices in monopolistic or oligopolistic markets at levels that would enable them to generate sufficient profit.
- Subjecting SOEs to the same labour and employment regulations; eradicating any local content obligations for the SOEs and rationalising procurement procedures; and appraising SOEs' investment decisions.
- Improving corporate and fiscal governance through reforms that enable SOEs' management boards the operational autonomy they require to make profit-maximizing decisions and eliminating political interference to enhance operational transparency.

2. Avoiding Excessive and/or Discretionary Resource Extraction from SOEs

In collaboration with the relevant SOEs' parent departments, National Treasury should reduce excessive resource extraction, which reduces the SOEs' competitiveness, through the following:

- Establish explicit and progressive guidance to SOEs on expected rates of return and the distribution or reinvestment of profits. Instituting a predetermined dividend policy in the form of a fixed percentage of annual profits or link the pay-out to achieving the desired capital structure for each SOE.

3. Reducing fiscal risks from SOEs' borrowing

SOEs require access to financing to maintain their operations and undertake investments. Fiscal rules that necessitate SOEs to run balanced budgets render them competitive relative to other private sector companies operating in the same sector. SOEs should therefore be allowed to charge higher prices to cover financing costs. However, National Treasury should establish safeguards to prevent SOEs from becoming too leveraged and should not provide preferential access to finance and contractual terms to SOEs. They should instead introduce transparent and non-discretionary controls on borrowing to ensure the SOEs remain liquid and solvent.

The provision of government guarantees by the National Treasury should be subject to assisting SOEs in obtaining financing for projects with significant public benefit. National Treasury should establish an aggregate debt ceiling for each sector to be approved by Parliament. Government guarantees should then only be granted to SOEs subject to an in-depth and explicit appraisal of their ability to service the debt. The SOEs should be charged fees comparable to those imposed on any guarantees granted to private sector companies, as is the case, for instance, in Australia.

Borrowing controls should be premised on clear, predetermined, and impartial benchmarks that evaluate the SOEs' capacity to service their debts. This should entail the size and structure of the SOEs' liabilities, their interest burden, debt repayment schedules, operational profitability, the size of their contingent and known future liabilities, the liquidity of their assets, and the volatility of their revenues. The evaluation must also forecast how the new capital structure will impact these indicators. At a minimum, the indicators used by National Treasury for evaluating the SOEs must incorporate the ratio of gross liabilities to revenue, debt denominated in foreign currency to foreign exchange reserves, interest payable to revenue, and liquid assets to short-term liabilities. The indicators should be standardised and weighted for making approval decisions.

4. Monitoring, reporting, accounting, and control


In collaboration with the relevant SOEs' parent departments, National Treasury should obligate SOEs to implement effectual systems to monitor the execution of their budgets and provide detailed reports in this regard. National Treasury should acquire human and technical resources required to monitor the SOEs, safeguard their adherence to financial and reporting obligations, scrutinise budgets and reports, and provide appropriate feedback on necessary remedial action where necessary.

National Treasury must make it mandatory for SOEs to submit a consolidated set of statements that will enable statistical analysis. A separate statement must be prepared on targets for the government and SOEs and evaluated using different criteria. Government spending on SOEs should be assessed on whether it achieved aims such as macroeconomic growth and fiscal stability, and the SOEs' budgetary allocations must be evaluated on their profitability, efficiency, and liquidity. National Treasury should strengthen their SOEs' asset and liability management capabilities. This should ensure that SOEs boards have the necessary skill set to prioritise this.

5. Improving the transparency of SOEs' operations

Public disclosure and appropriate distribution of detailed information on SOEs' operational and financial performance are critical for good governance. Moreover, examination by external stakeholders significantly increases the SOEs' accountability and discourages political complicity or flagrant corruption. National Treasury should institute reforms aimed at improving transparency, focusing on the following:

- More declaration of the SOEs' contingent and future liabilities and the results of sensitivity and risk analyses.

- 
- Safeguarding that the SOEs' quarterly and annual reports include sections analysing their performance during the corresponding period.

6. Establishment of a centralised holding company

There is theoretical and empirical evidence that a centralised holding company, that monitors or controls SOEs, improves its performance and reduces fiscal risk. Holdings with corporate structures may not automatically produce better results than a well-staffed centralised unit within National Treasury. However, a centralised holding company is critical to reducing monitoring costs. National Treasury should establish a centralised holding company that will operate with tight ex-ante controls regarding debt and capital expenditure plans to minimise the fiscal risk inherent in the operation of SOEs.

REGARDING THE BASIC INCOME GRANT

7. Recalculate the COVID SRD

The Minister of Social Development and the Minister of Finance should reconsider recalculating the COVID social relief of distress grant amount with a well-informed determination formula. The Commission notes the static and arbitrary amount value of R350 attached to the social relief of distress grant. The Commission encourages a recalculation of the amount that takes into consideration the cost-of-living crisis and unemployment. Moreover, a permanent basic income support structure is needed when considerations are made about the value of the income support.

8. Account for recorded public underspending

The Minister of Social Development and the South African Social Security Agency should account to the public for underspending recorded in the adjustment's appropriation bill and the second adjustments appropriation bill amounting to R1.8 billion and R3.7 billion, respectively. The results suggest that a growing number of South Africans are jobless and need income support. However, the reduced intake for the social relief of distress grant points to the misadministration of the budget allocated to the Department of Social Development. The grant is not merely an exercise of convenience but an essential lifeline. The Commission notes that difficulties are associated with eligibility requirements but urges a level of reliability in the administration of grants. The underutilised allocation could have also serviced other spending pressures in the budget.

9. Develop a correspondent policy tool

The Minister of Social Development should develop a policy tool that interlinks with access to complementary social and economic opportunities with opportunities such as the expanded public works programme (EPWP). The Commission envisages policy tools that can link social grant recipients to employment, training and education opportunities. The tools would enable coordination between state initiatives aimed at improving the behaviour and economic status of beneficiaries. The Minister should use the grant beneficiary demographic data at its disposal to track the success of the social grant network system. Data inefficiencies in the current administration make the proper monitoring and evaluation of the grant system burdensome and difficult. The Commission urges proper record-keeping and information dispensation at the Department of Social Development, as accurate reports are the only way to dismantle obstacles in the system and identify threats.

CHAPTER 3: REGARDING LEARNER TEACHER SUPPORT MATERIALS AND LEARNER TRANSPORT IN SOUTH AFRICA:

WITH RESPECT TO LTSM

1. The Minister must ensure that the draft LTSM policy, which has been stalled since 2014, is finalised and approved.
2. Funding for LTSMs should be prioritised, especially for quintiles 1, 2 and 3 schools. National funding norms need to be developed to guide spending on LTSM per child, per phase – foundation, intermediate, senior and FET. Moreover, specific priority should be given to the provision of LTSMs for learners with special educational needs.
3. LTSMs are critical in improving reading for meaning. The Minister of Basic Education must fund a national programme that is aimed at improving reading for meaning and which is uniformly implemented across the nine provinces. Lessons from successful local initiatives must be drawn on to determine which approaches are likely to succeed.
4. To aid improved monitoring and oversight of LTSMs (particularly textbooks) to achieve the goal of universal coverage, the Minister of Basic Education must expand the modules contained in the South African School Administration and Management System (SA-SAMS) to include LTSM.

WITH RESPECT TO LEARNER TRANSPORT

5. The national and provincial departments of transport and basic education should improve data collection and reporting and ensure that accurate data on learner transport, including annual demand and expenditure is reported and made publicly available through annual reports.
6. Infrastructure delivery should be planned holistically and coordinated to ensure that, where possible, the need for learner transport is kept to a minimum, particularly in areas experiencing an inward migration of learners. This requires coordination between the various infrastructure delivery plans such as human settlements and school infrastructure. Furthermore, provincial treasuries and provincial education departments (PEDs) must ensure that school infrastructure delivery plans for building new schools in provinces prioritise areas with sustained higher demand for learner transport or with higher learner transport beneficiaries.
7. The national and provincial treasuries, in consultation with provincial departments of transport and basic education, should develop a new funding model for learner transport. Such a model must also include flexibilities for provinces to address emergency contracts to provide learner transport.
8. The provincial departments responsible for learner transport should develop systems to verify the number of learners transported through the learner transport programme annually to ensure that annual changes are captured and accounted for (learners pass primary and move to secondary schools, learners pass matric while some drop out).

CHAPTER 4: REGARDING THE ASSESSMENT OF THE RESPONSE TO CLIMATE CHANGE IN LOCAL GOVERNMENT:

1. The Minister of Finance should create an enabling framework to ensure government budgets are climate sensitive and incorporate green budgeting measures across budget cycles, budget circulars, the medium term expenditure framework (MTEF), as well as Municipal Finance Management Act (MFMA) and Public Finance Management Act (PFMA) processes. Climate change indicators and targets should inform this process
2. The National Department of Forestry, Fisheries & Environment (NDFF&E) and Cooperative Governance and Traditional Affairs (COGTA) should spearhead integration, coordination, and implementation of climate change responses so that it is in line with the national agenda on transitioning to a low carbon and resilient economy. The Department of Monitoring and Evaluation (DPME) and the Presidential Climate Commission (PCC) must monitor, evaluate and report on the progress made by subnational governments in integrating climate change responses in their respective planning documents. Committees at the legislatures and

municipal councils should exercise their oversight role by ensuring that integration, coordination, and implementation of climate change responses take effect.

3. National Treasury, together with COGTA and the National Department of Public Works and Infrastructure (DPW&I), should, as a starting point, revise formats for the infrastructure grant frameworks to include climate change response specifications so as to be able to gradually achieve climate resilient infrastructure, with a strategic approach in the medium to long term of incorporating climate change mitigation and adaptation measures to all infrastructure related projects

CHAPTER 5: REGARDING THE INVESTIGATION INTO SPATIAL INEQUALITIES AND THE EFFICACY OF MUNICIPAL SPENDING IN DRIVING LOCAL ECONOMIC DEVELOPMENT:

1. The Commission recommends that to overcome persistent challenges municipalities face in the context of the rapidly changing economic environment, the Minister of COGTA and the Minister of Finance should critically review the local government fiscal framework. A differentiated approach is needed to ensure the policy is well-tailored to overcome unique issues individual municipalities face. To achieve this, the fiscal framework may need to be radically, rather than incrementally, reconfigured.
2. Careful attention must be given to the funding mechanism of conditional grants and the Commission thus recommends that COGTA and National Treasury develop an appropriate funding mechanism or funding plan in a targeted and phased approach, which enhances the capacity of municipalities to spend conditional grants effectively. The District Development Model (DDM) must be strengthened and financed for local government to fulfil its developmental role.
3. The Commission recommends that any future framework development on local economic development (LED) should include the aspect of skills development through the revitalisation of mentorship/apprenticeship programmes to address the country's unskilled labour issue.

CHAPTER 6: REGARDING MUNICIPAL COST RECOVERY AND THE AFFORDABILITY OF BASIC SERVICES:

1. National Treasury, in consultation with the South African Local Government Association (SALGA), CoGTA, and provincial governments should urge local municipalities to apply effective revenue enforcement and credit control mechanisms and improve billing and accounting systems to increase payment and cost coverage levels. Officials responsible for managing municipal finances should possess the competencies and skills required to perform their roles. In addition, municipalities should apply the prescripts of various legislation such as the Municipal Systems Act, Municipal Property Rates Act, Municipal Structures Act, MFMA, and other municipal service provision by-laws to enforce payment from residents.
2. CoGTA, in consultation with SALGA, should ensure that the credit control systems of Eskom and municipalities are aligned by means of a memorandum of understanding (MOU), and that Eskom should assist municipalities with credit control via electricity disconnections within areas supplied by Eskom. This is a reiteration of a previous recommendation.
3. The Commission recommends that COGTA should engage SALGA about incorporating innovative approaches in the "Asisho! Let's Say it" campaign to increase awareness about the importance of paying for municipal services. In addition to using television to disseminate the message, other forms of media such as national and community radio stations, billboards, sending prompts via WhatsApp, SMS, and email, and inserts in newspapers should be used to reach a wider audience.
4. The Commission recommends that the National Treasury should urge municipalities to assess the affordability of the total municipal bill as part of the municipal tariff setting process. This can be done using the tariff setting tool developed by National Treasury, which includes a component for testing the affordability of tariffs to customers.



PART 1

FINANCIAL AND FISCAL MATTERS: EVIDENCE- INFORMED POLICYMAKING

CHAPTER 1:

Escalating Global Inflation: The Sources, Spillovers and Fiscal Sustainability

1.1 INTRODUCTION

The COVID-19 pandemic has occasioned a significant shock to the global economy that manifested in outright decelerations in output in many countries. The pandemic, and its impact, have yet to reach its end, thus, compelling policymakers to contend with an unfinished and imbalanced rebound amidst high public debt and indeterminate inflation prospects, as well as external risks of capital flows and exchange rate developments.

The global economy experienced a substantial drop in inflation over the past four to five decades, particularly in the early episodes of the COVID-19 pandemic. Since then, resurgent commodity prices, supply-chain interruptions, labour deficiencies, and an upturn in domestic demand have jointly spurred inflation to unprecedented apexes (International Monetary Fund, 2021; Adrian & Gopinath, 2021 and Daminger, 2022). Most Emerging Markets (EMs), inclusive of South Africa, are enduring a sharp upsurge in food prices, which represent a significant portion of their consumption basket (Caseli & Mishra, 2021) and (International Monetary Fund, 2021). Core inflation has also risen in many EMs as currency depreciation impacts the prices of imported goods. Inflation expectations for short to medium term are currently well-anchored. However, persistently high inflation could impact expectations, rendering endeavours of reigning on inflation gruelling.

The latest developments in the evolution of global inflation have meant that many EMs are experiencing tightening global financial conditions. Rising energy and food prices, together with tenacious supply chain interruptions amidst extreme uncertainty of the progression and effects of the pandemic, are sustaining inflationary pressures in EMs that are projected to remain elevated, at least for this year, although with substantial differences across the EM countries (Adrian & Gopinath, 2021 and Daminger, 2022). Most EMs have withdrawn the pandemic-fighting emergency measures and tightened monetary policy. This response has enhanced policy credibility and anchored long-term inflation expectations.

However, the challenge of tightening monetary policy to achieve price stability will be considerable, given the substantial output and employment deficits in most EMs (Adrian & Gopinath, 2021). The challenges to calibrating monetary policy emanate from the intensified uncertainty associated with the COVID-19 pandemic, the delicate balance between supporting the economy and combating inflation, and the vulnerability to external conditions.

External risks result from EMs' dependence on global financial markets and their consequential susceptibility to global financial conditions (Mimmi & Sunel, 2019 and Tobal & Menna, 2020). Tightening monetary policy in the US can result in substantial capital flows and exchange rate movement spillovers in EMs. These spillovers, consequently, could impact domestic financial conditions and inflation. This means that exposed countries with high debt levels and weaker institutions could find it hard to assuage any spillovers from global conditions on the domestic economy.

In this context, this chapter will examine international inflation trends, sources, and the international inflation spillovers on the South African economy. The chapter will examine how inflation shock affects

South Africa's public debt dynamics using a Vector Autoregressive (VAR) model. A sustainable fiscal outlook is essential for a growing economy and for addressing inflation spillovers. Putting South Africa's public finances on a sustainable fiscal path creates a conducive environment for growth. With a solid fiscal foundation, South Africa will have increased access to capital, more resources for future public and private investments, improved investor confidence, and a stronger safety net. If long-term fiscal imbalances are not addressed, the ability to respond to future economic shocks will be weakened, with fewer economic opportunities and less fiscal flexibility to respond to future crises. The current increase in price levels could have a detrimental effect on macroeconomic performance and public finances in general.

1.2 RESEARCH METHODOLOGY AND DATA

The research methodology is two-pronged, entailing qualitative and quantitative techniques that will quantify the impact of global inflation and assess its risks on public sector fiscal sustainability. The qualitative approach encompasses a qualitative analysis of the long-term structural factors affecting inflation, effects of inflation on inequality and poverty; evolution of global inflation; global inflation synchronisation; sources of inflation: global and domestic; inflation and exchange rate pass-through.

The quantitative approach utilises data from a cross-country database of inflation from the World Bank, and data from the South African Reserve Bank and Statistics South Africa. The quantitative analysis will incorporate six measures of inflation: headline, food, energy, core CPI inflation; PPI inflation; and GDP deflator changes at monthly, quarterly and annual frequencies.

To understand the effects of inflation on fiscal sustainability, we estimate the VAR model and run impulse response. The chapter will use time series econometrics to model the effect of inflation on public debt dynamics. The quarterly variables: primary deficit (share of GDP), growth rate, inflation rate, the average interest rate on debt, and debt ratio (share of GDP) will be used for the VAR.

The question of whether public debt is on a sustainable path is a central consideration in any macroeconomic analysis of fiscal sustainability. More specifically, the submission uses VAR model following Cherif and Hasanov (2018) and Favero and Giavazzi (2007). The submission adopts an unrestricted VAR based on the following four variables in the endogenous vector Y specified in equation (1): primary deficit-to-GDP ratio primary expenditures minus revenues, (pb), real GDP growth rate (g), inflation rate based on the GDP deflator (π), and nominal average interest rate based on interest payments on debt (i).

$$Y_t = \sum_{i=1}^k A_i Y_{t-1} + \sum_{i=1}^l \gamma_i d_{t-1} + \varepsilon_t \quad 1$$

An important step in estimating a VAR Model and computing impulse response analysis and decomposition of the forecast error variance is the lag (the number of lags is represented by K and l) order selection. In this submission, we use commonly used lag-order selection criteria to choose the lag order, such as the Akaike information criterion (AIC), Schwartz criterion (SC), Hannam-Quinn criterion (HQC) and final prediction error (FPE) to determine the optimum lag.

1.3 HISTORICAL EVOLUTION OF GLOBAL INFLATION

Global inflation has fallen substantially until recently. The deceleration in global inflation peaked in the mid-1980s in advanced economies and was shortly followed by similar declines in emerging and developing economies (EMDEs) in the mid-1990s. In 2000, global inflation was stable at unprecedentedly low levels. The

low inflation rates coexisted with lesser currency volatility, particularly in advanced economies (Ha, Kose, & Ohnsorge, 2019). However, during this period of inflation deceleration, various shocks resulted in upward price pressures. In analysing global inflation, we divide the global evolution phases into three condensed periods (i) The great inflation (1970-1980); (ii) Opening and trade liberalisation (1990-2000) and (iii) The financial and COVID-19 crisis (2000-2020).

1.3.1 THE GREAT INFLATION (1970-1980)

In the 1970s, with the quadrupling of oil prices in 1973 and the doubling of oil prices in 1979-1980, the global median inflation increased from 4.4 per cent in 1970 to 13.7 per cent in 1980. The rapid acceleration in inflation resulted from, among other things, easing the constraints of fixed exchange rates, intended to reinforce economic activity and enhance monetary expansion in advanced economies.

Eliminating the nominal anchor of fixed exchange rates triggered an inflationary wage-price spiral. The elimination of a nominal anchor of fixed exchange rates caused a spill-over of inflation from advanced economies to EMDEs through accommodative monetary policy (IMF, 2011). As a result of high inflation, the 1980s saw the introduction of monetary policy tightening (i.e. increases in interest rates) in advanced economies to rein in inflation.

Consequently, inflation decreased significantly from its peak of 15 per cent in 1974 to a median of 3 per cent in 1986. For instance, short-term interest rates in the United States almost quadrupled between the end of 1976 and mid-1981. The interest rate increases resulted in the contraction of economic growth by more than 2 per cent between early 1981 and mid-1982. The EMDEs did not experience a similar deceleration of inflation over this period because of several constraints, including insistent large fiscal and current account deficits, fixed exchange rate regimes, worsening terms of trade for commodity exporters, and political disturbances (Ha, Kose, & Ohnsorge, 2019). Consequently, some EMDEs such as Argentina, Brazil, Chile, Israel, Mexico, Peru, and Uruguay experienced persistently high inflation.

1.3.2 OPENING AND TRADE LIBERALISATION (1990-2000)

In the 1990s, most EMDEs initiated economic efficiency measures encompassing macroeconomic stabilisation programs and structural reforms. These initiatives entailed the elimination of foreign exchange market controls, trade liberalisation, strict fiscal policy, and robust fiscal and monetary policy frameworks. The reforms resulted in inflation soaring in most EMDEs as price and exchange rate liberalisation increased aggregate demand. Succeeding stabilisation measures resulted in output contraction. In Uzbekistan and Georgia, for instance, economic growth contracted cumulatively by 16 per cent and 75 per cent between 1989 and 1994 (Fischer, Sahay, & V.gh, 1996). However, in a relatively short period spanning two years, in most EMDEs economies, growth resumed. For instance, in Latin America and the Caribbean, rehabilitated stabilisation programmes, strong fiscal discipline, and greater central bank independence translated into the deceleration of gained inflation.

1.3.3 FINANCIAL AND COVID CRISIS (2000-2020)

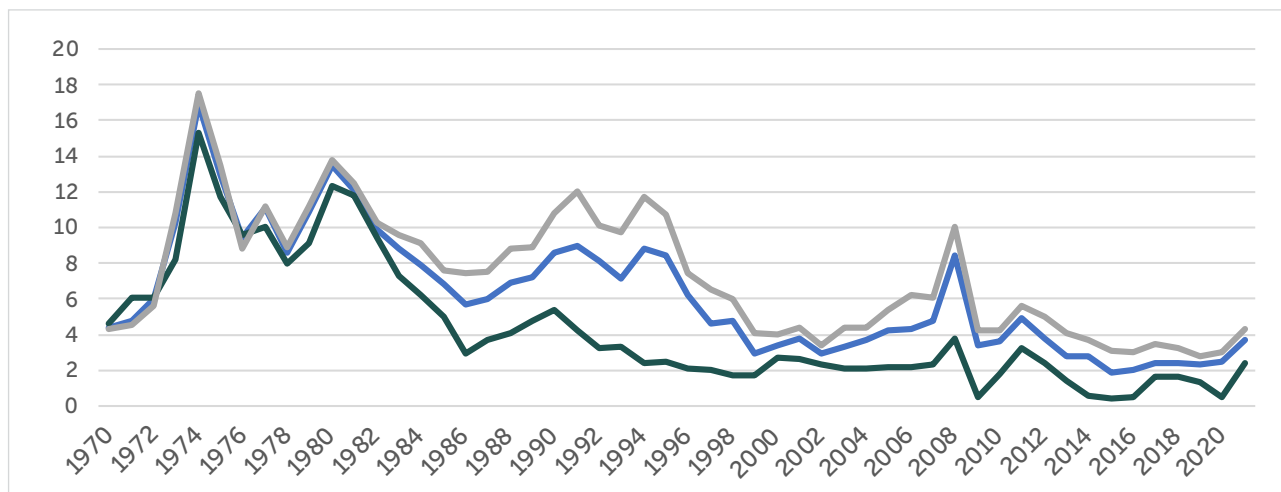
In the early 2000s, the disinflation of the 1980s and 1990s was halted by the build-up to the global financial crisis, as energy and food prices rose sharply. However, the advent of the global financial crisis introduced mild disinflation and, in many advanced economies, episodes of negative inflation (Ha, Kose, & Ohnsorge, 2019). Post-crisis, low inflation was unprecedentedly universal among advanced economies. In 2015, for instance, inflation was negative in more than 50 per cent of the advanced economies, and in 2016, inflation was in the low single digits in 75 per cent of the advanced economies.

Monetary authorities in advanced economies instituted extraordinary accommodative monetary policy measures after the global financial crisis to mitigate the risk of deflation. In EMDEs, inflation reverted to within target ranges in 60 per cent of inflation-targeting economies. In 80 per cent of EMDEs, inflation in

the second quarter of 2018 reached a narrow range of 0.8 and 6.7 per cent, compared with a broad range of 3.9 to 23.9 per cent in the second quarter of 2008¹.

The continued deceleration of global inflation is captured by Figure 1 below, reflecting that decelerating reached 2.3 per cent in 2019. This trend decline was widespread, encompassing both advanced economies and EMDEs. These decelerations in inflation resulted primarily from a more robust emphasis by monetary authorities on price stability as the principal goal of monetary policy in conjunction with the swift globalisation and liberalisation of product, labour, and financial markets (Ha, Ivanova, et al. 2019).

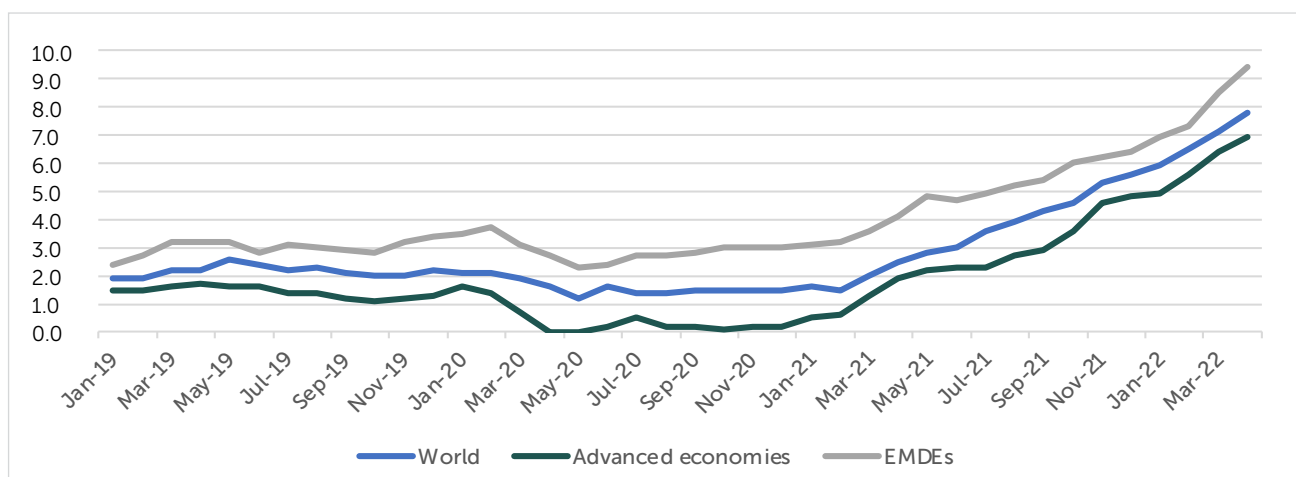
Figure 1.1: Headline CPI inflation, 1970-2020



Source: World Bank

The inflation trends also reveal that in 2019, before the COVID-19 pandemic, inflation was within the target ranges in almost all inflation-targeting advanced economies. Similarly, in approximately 50 per cent of inflation-targeting EMDEs, inflation was within target ranges from 2012 to 2019. However, since early 2020, global inflation has been vastly unstable, as shown in Figure 1.2 below.

Figure 1.2: Monthly CPI inflation, January 2019-March 2022



Source: World Bank

In the first quarter of 2020, global inflation declined by about one percentage point because of a sharp decline in demand and oil prices collapsing. However, in May 2020, global inflation accelerated because of a recovery in oil and food prices and an economic activity revival resulting from lifting the lockdown restrictions necessitated by the need to control the first wave of the pandemic. The spike in commodity prices, as a consequence of the war in Ukraine and supply interruptions, a new wave of the pandemic

¹Ibid

and reinstated movement restrictions in China, have further increased the price of food and energy, thus increasing inflation, as shown in Figure 1.3 below.

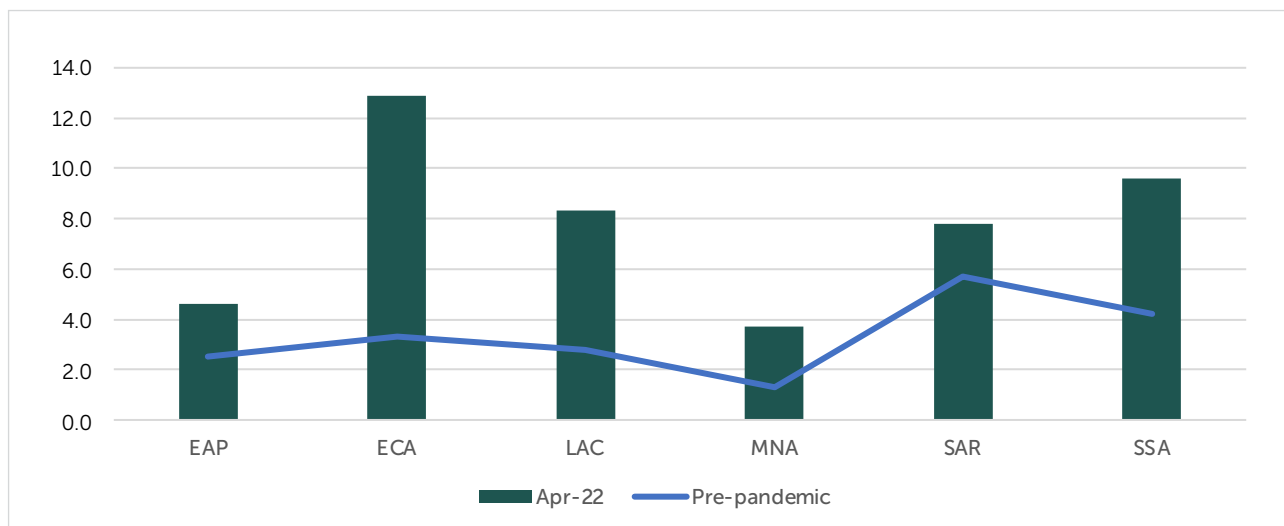
Figure 1.3: Sectoral contributions to headline CPI



Source: World Bank

The most recent data shows that global inflation is at 8.8 per cent, (2022 annual average) its highest level since 2008². In advanced economies, inflation is currently at its highest level since 1982. In EMDEs, inflation is at 9.9 per cent (2022 annual average)³, its highest level since 2008, up from a multidecade low in May 2020. As of April 2022, inflation was above target in all advanced economies, and almost 90 per cent of inflation targeting EMDEs. In EMDEs, the acceleration in inflation this year has been most marked in Europe and Central Asia due to recovering demand in advanced-economy Europe, interruptions of the war in Ukraine, and the commodity price hike. In contrast, in East Asia and the Pacific, where frequent lockdowns have been implemented, inflation has increased, but remained within the target ranges, as shown in Figure 1.4⁴ below.

Figure 1.4: Inflation in EMDE regions, April 2022



Source: World Bank 1.4 Findings

²See IMF World Economic Outlook Update, January 2023

³Ibid

⁴East Asia and Pacific (EAP), Europe & Central Asia (ECA), Latin America and Caribbean (LAC), Middle East and North Africa (MNA), South Asia (SAR) and Sub-Saharan Africa (SSA)

1.4 FINDINGS

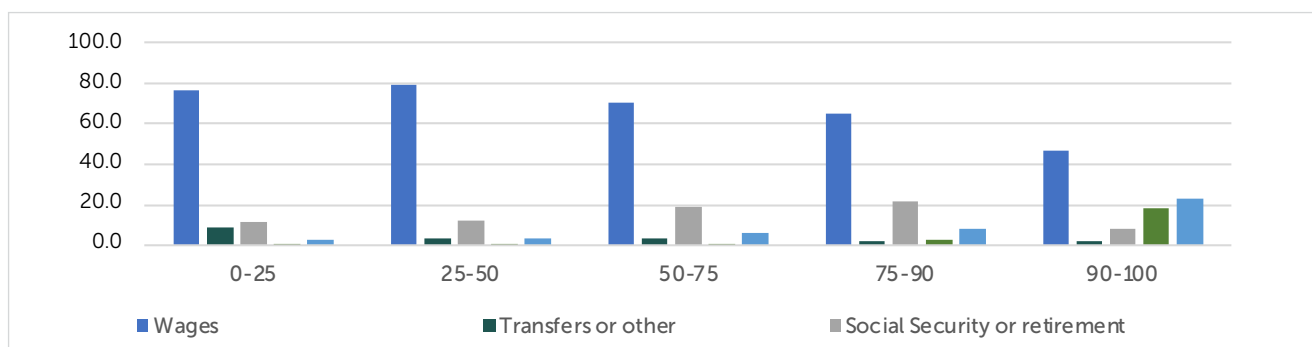
1.4.1 THE EFFECTS OF INFLATION ON INEQUALITY AND POVERTY

Inflation impacts different groups of households in varied ways. The literature records that the poor are much more likely to be affected by inflation than the rich. Poorer households experience more significant losses in the actual value of their income and wealth because of inflation than wealthier households due to the composition of income, assets, and consumption baskets; thus, inflation increases inequality (Easterly & Fischer, 2001).

In terms of income composition, in advanced economies, the poor depend more on wage income, transfers, and pensions but less on income from capital than higher-income households (Erosa & Ventura, 2002). Figure 1.5 below shows the US income sources according to income percentile. Given that wages usually fall behind price inflation, this implies that inflation could decrease the actual value of nominal wages, thus lessening the incomes of the poorest households compared to those of the richest.

It also represents a transfer of income away from labour income toward profits, thus worsening the distribution of income between rich and poor and aggravating inequality (Laidler & Parkin, 1975 and Fischer & Modigliani, 1978). Poorer households are unlikely to profit from indexed wages and health insurance (Bulir, 2001).

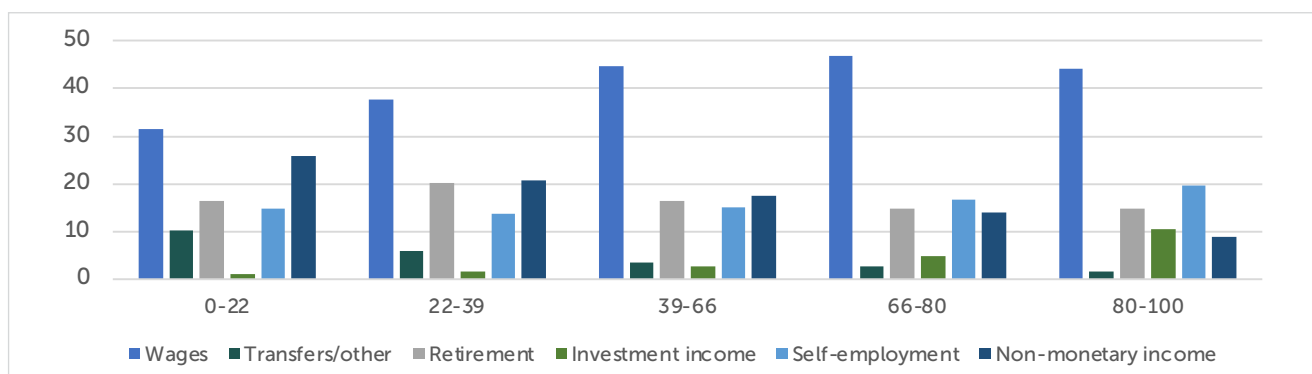
Figure 1.5: Sources of U.S. household income, by income percentile



Source: World Bank

Social protection transfers in most developed countries are indexed, implying erosion of real incomes, for some income groups in the short run, given that the adjustments typically lag inflation (Minarik 1979; Burdick & Fisher, 2007). Whereas these channels hold for EMDEs, households in EMDEs are more reliant on nonmonetary income, such as subsistence farming or barter. In Brazil, for instance, nonmonetary income accounts for more than 25 per cent of total income among the poorest fifth of households, as shown in Figure 1.6 below. The dependence on nonmonetary income means that such households could be less susceptible to inflation than wage income.

Figure 1.6: Sources of Brazilian household income, by income percentile



Source: World Bank

Regarding the composition of assets, the poor are more inclined to hold a large fraction of their assets in cash because of their limited access to financial assets that can shield them against inflation. The holding of assets in

cash by poor households emanates from the high entry cost of these financial assets (Kahn,1997); (Mulligan & Sala-i-Martin, 2000 and Erosa & Ventura, 2002).

In the United States, for instance, many households have a transaction or current account with a financial institution. However, the richest 20 per cent of households are four times as likely as the poorest to hold certificates of deposit and six times as likely to hold savings bonds. Similarly, the wealthiest households are 12 times as likely as the poorest 20 per cent to hold equities and 23 times as likely to have pooled investment funds (Demirgü.-Kunt et al. 2018). Incidences of high inflation are, therefore, likely to push some households into poverty through the erosion of the value of their savings, thus exacerbating inequality (Cysne, Maldonado, & Monteiro, 2005 and Areosa & Areosa, 2016).

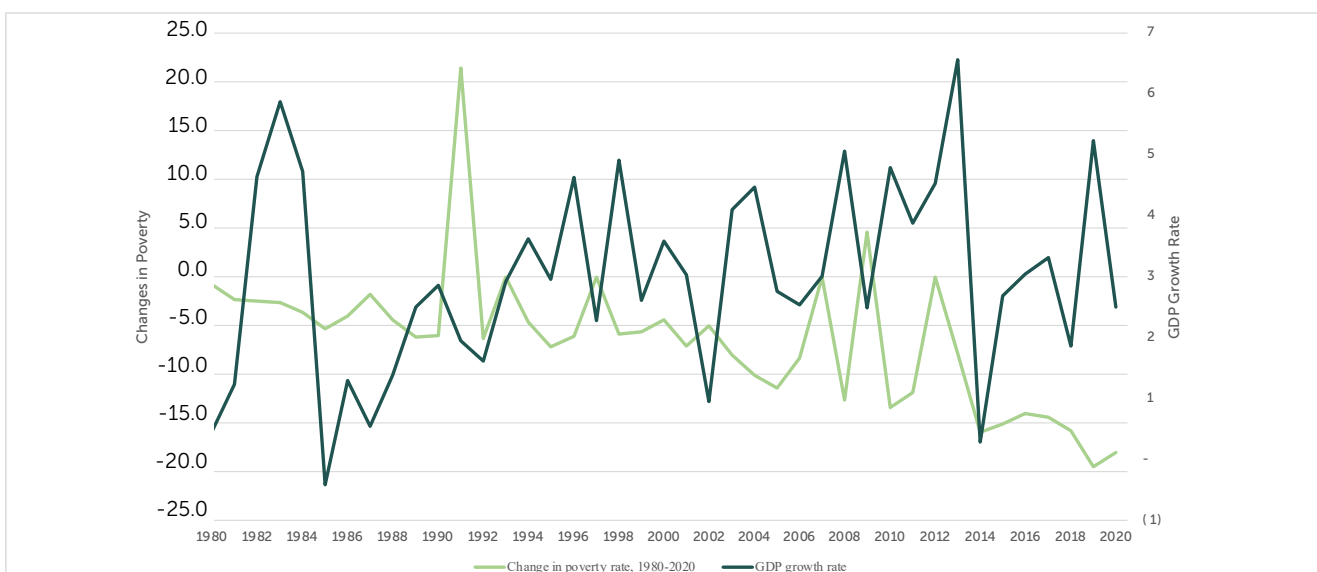
A sudden upsurge in inflation can erode the actual value of assets. Given that the wealthy are essentially net creditors, incidences of unexpected inflation lessen their wealth while simultaneously raising the wealth of net debtors by decreasing the real value of their debt (Palmer & Barth, 1977). Since the poorest households hold minimum assets and liabilities, they do not profit from unexpected inflation (Romer & Romer, 1998). In Brazil, for instance, 0.9 per cent of the poorest percentile of households have a mortgage, and 6.3 per cent have a credit card, as compared with 6.1 per cent and 44.2 per cent, respectively, for the wealthiest percentile.

The composition of the consumption baskets differs considerably by income group because households select various goods and services and use contrastingly priced varieties of equivalent goods and services. In EMDEs, for instance, the bottom quintile of households devotes approximately 50 per cent of their income to food compared to only 20 per cent for the top quintile.

The dynamics of food price inflation are not straightforward. Most poor households in EMDEs are producers and consumers of food simultaneously. This means that while increases in food prices impact the poor households in EMDEs more than higher-income households, a rise in food prices could boost the incomes of some poor households.

However, most poor households in the EMDEs are net food buyers; hence, sharp price increases will likely exacerbate poverty levels. For instance, the rise in food prices between 2006 and 2008 is estimated to have increased the poor by 105 million (Ivanic & Martin, 2008). Inflation indirectly impacts poverty and inequality through the economic growth channel. Consequently, low and stable inflation, combined with well-anchored inflation expectations, correlates with greater short-term stability of long-term growth and employment (Bruno & Easterly 1998; Eggoh & Khan, 2014).

Figure 1.7: Growth and change in poverty rate



Source: World Bank
 NB: Inflation and GDP data are averaged over the period 1980-2016

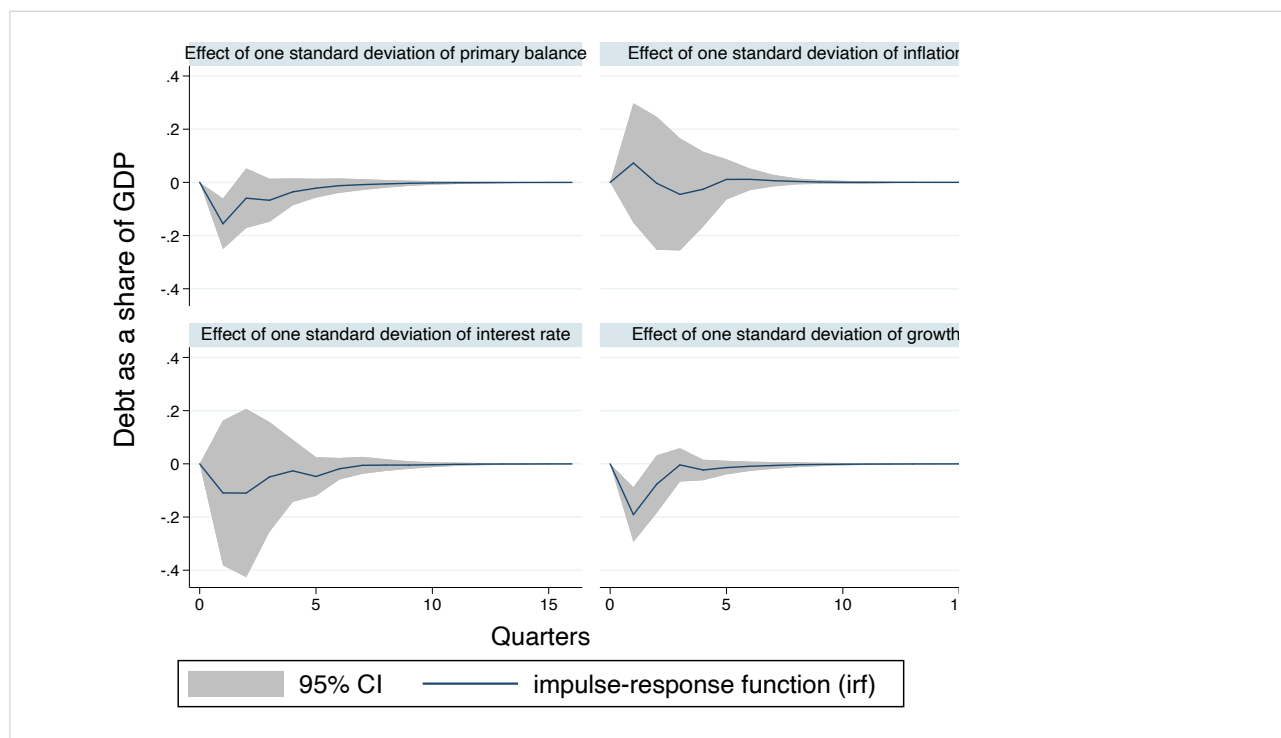
Stronger economic growth is largely helpful for the poor and has been correlated with sharper decelerations in poverty levels (Dollar & Kraay, 2004 and Dollar, Kleineberg, & Kraay, 2016). It is worth noting that the association has been highly nonlinear, as poverty has reacted to a lesser extent to growth when the poverty rate has previously been higher (Ravallion, 2012 and World Bank, 2010).

1.4.2 THE EFFECTS OF INFLATION ON PUBLIC DEBT DYNAMICS IN SOUTH AFRICA

Inflation can be expected to erode the real value of debt, considering that taxes are levied on nominal amounts i.e., income, value-added, profits, etc. Tax revenues increase when inflation rises, so the burden of servicing the existing debt as a proportion of public revenues declines. However, the impact of inflation on public finances also depends on whether financial markets anticipated higher inflation and on its expected persistence.

An anticipated rise in inflation would have caused an increase in nominal interest rates even before inflation and nominal growth started to pick up, thereby worsening the dynamics of the debt ratio. An unanticipated inflation shock will have a bigger impact on the path of the debt ratio. The persistence of inflation also plays an important role. If it is expected to remain elevated, it will cause an increase in market-based inflation expectations. But, this inflation is not expected to persist into the future. Hence the output shows that the debt, as a share of GDP, goes back into its path after five quarters from the initial shock.

Figure 1.8: Debt impulse responses



Source: Commission computation

Debt dynamics depend on the primary balance i.e. the budget balance excluding interest charges and the difference between the average cost of debt (r) and nominal GDP growth (g). A positive standard deviation of the primary balance should decrease the debt as a share of GDP. The relationship between primary balances and debt is straightforward. In a situation of a primary surplus, revenue exceeds primary expenditure, which means more money can be directed at reducing debt.

The decrease in public debt is mainly driven by the primary surplus and, to a less extent, by inflation, while growth and the interest rate counteract the fall in the debt ratio. The effect of interest (r) and growth on debt

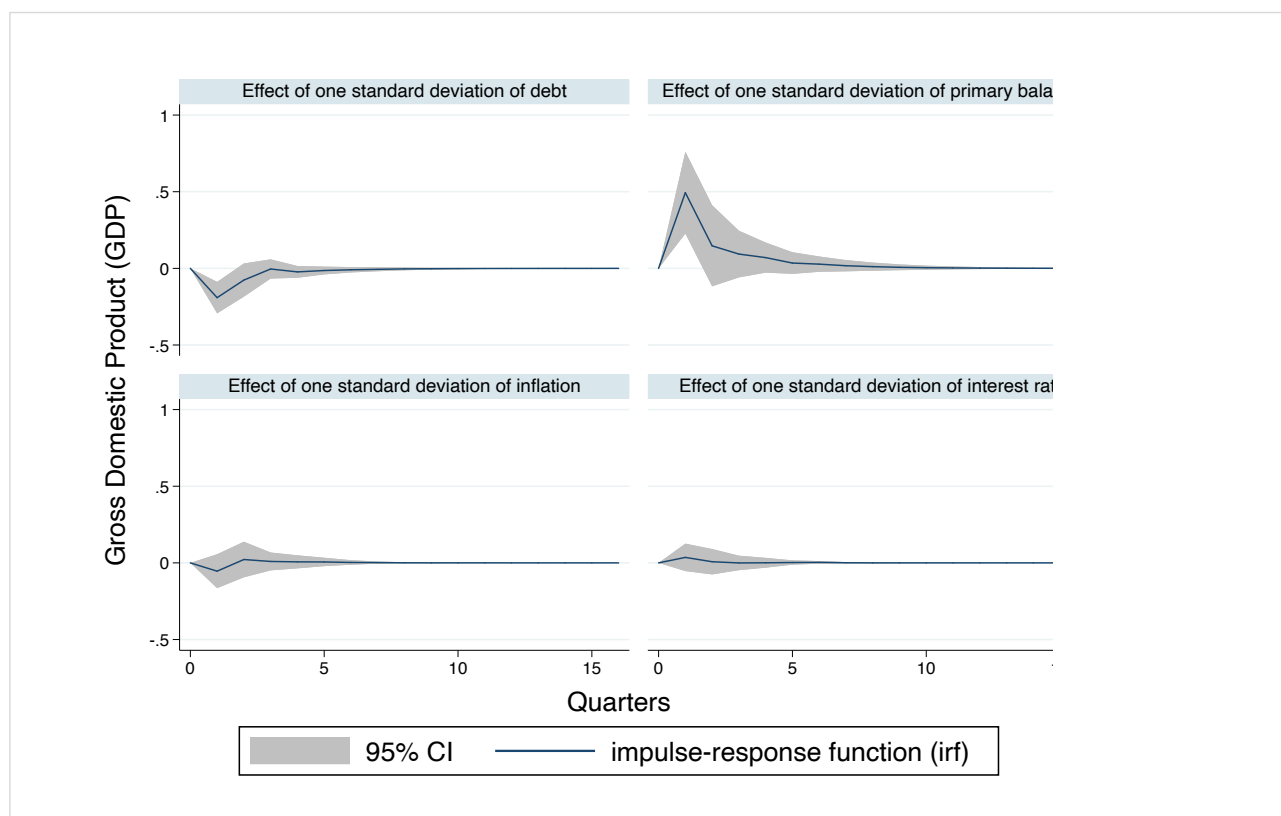
as a percentage of GDP depends on whether there is a differential between interest and growth. Higher growth that exceeds the interest rate, means that the government does not need a primary surplus to stabilise the debt. However, when growth is less than the interest rate, the government will need a primary surplus to stabilise the debt. South Africa's growth has been low; thus, a primary surplus is warranted to stabilise the debt. Achieving a primary surplus entails reducing expenditure or raising revenue through tax increases.

1.4.3 PUBLIC DEBT AND GROWTH DYNAMICS IN SOUTH AFRICA

The effect of increases in public debt on economic growth has received renewed attention in the context of the COVID-19 pandemic. The pandemic led to a significant contraction in the world economy, and pandemic policy responses, including expansionary fiscal policies, that have resulted in sharp increases in public debt levels.

According to the results of the modelling exercise used to measure impulse responses, one standard deviation shock on the debt will decrease South Africa's output. The results corroborate the findings by Soyres et. al. (2022) that an unanticipated debt shock will hurt the real GDP level after the shock in countries before reverting to the growth path. An increase in the public debt-to-GDP ratio harms the real GDP level for countries with a high initial debt level or a rising debt trajectory.

Figure 1.9: Growth impulse responses



Source: Commission computation

A primary surplus is also growth-enhancing. The results show that a primary surplus shock will increase output in South Africa. Greiner (2015) shows that a balanced government budget yields a higher long-run growth rate than when public debt grows at the same rate as all other economic variables. With permanent public deficits, there is either no balanced growth path, a unique balanced growth path or there exists two balanced growth paths.

1.5 CONCLUSION AND RECOMMENDATIONS

The sharp increase in food and energy prices that commenced in 2021 and was worsened by the war between Russia and Ukraine has occasioned governments' response to high inflation. Since 2021, global oil prices have doubled, natural gas prices in Europe have risen significantly, and fertiliser prices have tripled. Rising food and energy prices have increased the cost of living, reducing real incomes across most countries. Consequently, concerns about potential social unrest have been elevated as many households have been pushed into poverty, and millions of people are at risk of food shortage.

The impact has differed across countries, subject to whether they are net importers or exporters of commodities. The effects have also differed across individuals within a country because an increase in food prices affects low-income households, particularly those who spend a more significant portion of their income on food. The increasing prices of necessities and basic staples has a devastating and long-lasting effect on people.

Using a VAR, our findings suggest that an inflation shock would increase the debt ratio after only a few quarters (at least two quarters). Higher inflation rates will increase short-term and maturing long-term debt because they will be refinanced at higher interest rates. The floating rate debt will adjust automatically to higher rates hence the increase in debt-GDP.

However, if inflation persists, it is expected to reduce debt primarily by eroding the real value of outstanding medium- and long-term debt, hence the result shows that the debt-GDP ratio will decline before returning to its pre-shock path. The debt-to-GDP ratios could start increasing again, underscoring the temporary nature of the relief provided by inflation. Inflation could hardly solve the debt problem alone, as it would raise significant risks for the real sector by un-anchoring inflation expectations.

The findings suggest that the relationship between primary balances and debt is straightforward. In a situation of a primary surplus, revenue exceeds primary expenditure, which means more money can be directed at reducing debt. We find that a positive growth shock substantially reduces the public debt in South Africa. Policymakers should take a long-run view at reducing debt by stimulating growth in the short run and reducing primary deficits as an appropriate policy response, as these would bolster growth.

Lastly, fiscal policy is anticipated to loosen to protect the vulnerable from rising inflation. However, fiscal policy loosening could increase aggregate demand and offset the disinflationary effect of monetary policy. So, whereas targeted redistributive policies aimed at cushioning the vulnerable from the effects of high inflation are appropriate, fiscal deficits should be kept low to assist in containing inflation and tackling debt vulnerabilities.

Fiscal consolidation is also a good signal of alignment between fiscal and monetary policy in containing inflation. The composition of spending should also reflect a tight fiscal stance demonstrating a willingness to fight inflation. This entails, among other things, not increasing government spending without any fiscal contraction elsewhere because unfunded government spending increases or tax cuts will increase inflation and undermine monetary policy efforts to contain it.



1.5.1 RECOMMENDATIONS

1. *With respect to fiscal policy, the Commission recommends that National Treasury continues to focus fiscal consolidation on expenditure and revenue mix appropriate for debt reduction. This should be done by targeting primary a primary surplus to significantly reduce debt, foster economic growth and restore fiscal sustainability. Moreover, the Commission recommends that National Treasury crafts a medium term fiscal framework that must maintain long-term debt sustainability through consolidation, improving debt transparency, advancing debt management functions, and enhancing revenue collection and spending efficiency.*

Inflation expectations will not be well anchored if there are concerns about long-term fiscal sustainability, given the concerns about monetary policy constraints, particularly when high-interest rates infer unstable public debt dynamics. In the context of high debt and inflation and constrained monetary policy, fiscal policy support must be implemented in a manner that is attuned to and aligned with a credible medium term fiscal framework. At the same time, fiscal policy should protect the most vulnerable from high inflationary pressures and expand essential services such as healthcare, education and policing.

2. *With respect to social protection, the Commission recommends that the National Treasury in conjunction with the DSD, should design a comprehensive social security programme to protect those segments of the population particularly exposed to the negative impact of rising inflation, including higher energy, fuel and food prices. In the interim National Treasury and the DSD should address the challenges of access constraints of the current social protection measures, particularly the Special COVID-19 SRD Grant*

As the cost of living continues to increase, the most vulnerable members of society should be protected from the impact of higher prices. Poorer households often devote comparatively on food, heating, and fuel, which are the categories that have been predominantly impacted by high inflation. Moreover, adjusting consumption to minimise spending on these items is difficult because everyone must eat and use heating, and transportation. In other words, policymakers need to decide which groups and programmes to protect from income erosion, while avoiding policies that make inflation more persistent.

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CHAPTER 2:

The Impact of State-Owned Enterprises and Basic Income Grant on Fiscal Sustainability

2.1 INTRODUCTION

State-owned enterprises (SOEs) impose control over the economy by providing goods and services in a distinctly different manner from governments. SOEs offer people and businesses essential services such as water, electricity, and transportation. They shape industrial policy, thus transforming the economy through stimulating new industries. In South Africa, SOEs are crucial constituents of economic growth because of their critical role in strategic network industries. They dominate the utilities, transportation, and communications sectors and provide development finance.

The financial health of SOEs reflects weak financial performance, as demonstrated by the profitability and solvency metrics. In 2020/21, none of the major SOEs posted a net profit, and only Transnet consistently posted a positive net profit over the past five years before 2020/21. Eskom has published four consecutive annual losses from 2018. Its net loss increased from R2.3 billion in 2018 to R20.9 billion in 2019⁵. According to the unaudited financial statements, the net losses of South African Airways (SAA) increased from R1.4 billion in 2016 to R5.5 billion in 2019/20. Transnet posted a net loss of R8.4 billion in 2020/21⁶.

Some of the key SOEs, namely the South African Post Office (SAPO), Land Bank, Denel, SAA, SA Express, and Armscor, failed to submit their financial statements to Parliament when they were due in September 2021. Most of the major SOEs experienced sharp declines in the value of their assets from 2015. Most of these losses relate primarily to Transnet, Sanral, and Eskom, who all wrote down their assets substantially.

SOEs continue to constitute a fiscal risk for the government as they require fiscal transfers to cover their losses and recapitalise their balance sheets. SOEs are beneficiaries of significant support from the fiscus through transfers and guarantees, thus constituting huge direct costs and, consequently, a critical source of fiscal risks in contingent liabilities. The portfolio of government guarantees to SOEs has grown significantly since the mid-2000s, with the portfolio's composition changing substantially over the past decade. Support to entities, whose operational and financial performance continues to deteriorate, has thus exposed fiscal vulnerabilities.

Given the developments mentioned above, there are policy-related questions about whether the means through which SOEs are fulfilling their mandates is cost-effective. The financial strain that SOEs place on public finances in a fiscally constrained environment is a significant concern and is a factor that places pressure on the government's fiscal consolidation plans over the medium term. In addition, the onset of the COVID-19 pandemic and associated lockdowns worsened the situation, reducing the operational income of SOEs and slowing restructuring plans (National Treasury, 2022). Furthermore, insufficiencies in the service delivery by SOEs, particularly related to reliable electricity supply, coupled with corruption and improprieties in procurement and governance, have heightened the necessity for SOEs reform.

Contingent liability management in South Africa paints a distressing picture. Cumulative fiscal transfers amounting to R313.7 billion and government guarantees of R350 billion were allocated to Eskom between 2008/09 and 2025/26, in addition to R663.7 billion in budget support⁷. Consequently, fiscal transfers and government guarantees, as a percentage of GDP, rocketed from 0.42 per cent in 2008/09 to 9 per cent in 2018/19. This unsettling development triggers concerns over the government's capability to support SOEs in

⁵See Eskom Annual Reports 2018 and 2019

⁶See Transnet Annual Report 2021

⁷See National Treasury Budget Review 2020

a manner capable of stemming the current tide of fiscal risks resulting from the unsuccessful management of government contingent liabilities. Additionally, the materialisation of contingent liabilities would likely result in credit rating downgrades for South Africa. Already, many investors are unwilling to lend capital, increasing the risk of certain entities defaulting on their debt.

The COVID-19 pandemic also introduced further pressures to the fiscus in addition to those mentioned above on SOEs. This pressure has stemmed from the rollout of the temporary COVID-19 Social Relief of Distress grant to people with no income. Given the prevalence of poverty and inequality in South Africa, researchers and policymakers are driven to understand the macroeconomic impacts of extending social security interventions to alleviate poverty and reduce inequality. In South Africa, social grant beneficiaries have increased from 2.4 million in April 1998 to a projected 18.3 million in 2021 and 26.6 million in 2022 (Van der Berg, 2005, National Treasury, 2023).

The universal basic income grant (UBIG) is one of several ways to ensure the universality of social protection floors. The cost of such a social protection floor includes four basic guarantees, namely, (i) allowances for all children and orphans; (ii) maternity benefits for all women with new-borns; (iii) benefits for all persons with severe disabilities; (iv) universal old-age pensions. In 2000, South Africa had its first recommendation for a universal income grant through the Taylor Committee of Inquiry into Comprehensive Social Security. Universal social protection floors have since been shown to reduce poverty and increase employability and growth (Ardington, et al., 2007).

There has since been various policy proposals for a permanent social assistance programme, including a Basic Income Grant (BIG), which have suggested to extend income support to people who have no income, particularly those between the ages of 18 and 59. The BIG policy brief by the Human Rights Commission defines a BIG as a cash payment made to either a specific group of people or all citizens to lift people from a poverty trap (Human Rights Commission, 2018). The brief notes that a BIG may be granted using a means test, where the cash payment is only paid to people earning below a certain level of income. According to Senona (2020), implementing a BIG could potentially contribute to lower levels of poverty, unemployment, and inequality in South Africa. A BIG could directly impact growth at the macroeconomic level by increasing labour force participation and stimulating aggregate demand (Deloitte and Touche, 2021).

The aim of this chapter is twofold. Firstly it is to review the state of South Africa's major SOEs, evaluate their role in economic development, assess the risks they pose to fiscal sustainability, and examine possible SOE reforms. Secondly, the research paper aims to determine the fiscal feasibility of a BIG in South Africa. It will assess the programme's costs and the country's expected fiscal capacity to absorb the costs over the forecasted period.

Qualitative and quantitative methods are employed to assess the extent of the risks from SOEs and contingent liabilities, the impact of a BIG on the fiscus and the measures that can be implemented to mitigate the threat to fiscal sustainability. Given the overall weak financial and operational performance of SOEs in South Africa, and limited scope to further increase spending on social assistance programmes, the associated fiscal risks are expected to be substantial and require urgent attention.

2.2 RESEARCH METHODOLOGY AND DATA

Qualitative and quantitative techniques shall be used to assess the risks from public sector institutions on fiscal sustainability. In addition, the mixed-method approach is utilised in measuring the fiscal feasibility of the BIG.

2.2.1 QUALITATIVE APPROACH

This approach comprises a qualitative review of the South African SOE landscape, the developmental role of SOEs, the financing of SOEs, government debt and contingent liability management, mitigating and managing

fiscal risks from SOEs, and reform of SOEs. The research will review the centralised SOE monitoring model and the State-Owned Holding Companies' experiences.

2.2.2 INCIDENT STUDY

The paper includes a cost-benefit analysis (CBA) that analyses the socioeconomic benefit and the cost of implementing some of the eight BIG policy options in the current fiscal space. The CBA encompasses estimations of policy implementation costs and a cost forecast of the BIG policy over three years. The forecasting estimates are calculated following a non-parametric forecasting approach. After considering the costs and reach of certain policy options, the paper will include their respective incidence curves. Furthermore, the research will consist of a descriptive section focusing on the distribution of social grant recipients in each province and municipality. The study will utilise the Geographic Information System mapping method to demonstrate the graphical distribution of grant recipients around the country.

2.3 FINDINGS

2.3.1 GOVERNANCE OF SOES

The latest governance developments regarding Eskom have seen the President appoint the Electricity Minister and bestow on him wide powers, in terms of Section 97 of the Constitution. This implies that there would be a transfer of certain powers and functions from other government institutions to enable the Electricity Minister to execute his mandate, which is primarily to significantly reduce the severity and frequency of loadshedding. The Electricity Minister chiefly has political responsibility, authority, and control over all vital elements of the Energy Action Plan. He is, therefore, expected to facilitate the coordination of various departments and entities seized with responding to the current electricity crisis while simultaneously working with the Eskom leadership to improve the performance of existing power stations and hasten the procurement of new generation capacity.

The main concern with this arrangement is that it will bestow the new Electricity Minister with the overall responsibility of resolving the electricity crisis that could result in turf wars with other entities with a similar mandate, such as the Department of Public Enterprises (DPE) and the Department of Mineral Resources and Energy (DMRE). The potential territory war could hamstring the resolve of the energy crisis.

The DPE, for instance, is still expected to be the shareholder representative of Eskom and drive the restructuring of the entity. The DPE minister will continue to ensure and oversee the establishment of the transmission company, the implementation of the just energy transition programme, and the establishment of the SOE Holding Company. This makes it difficult to understand the effective role of the Electricity Minister.

In the early phases of this governance arrangement, divergent views are already emerging. The Electricity Minister has publicly expressed his belief that the ageing power stations need investment to refurbish them to improve their performance and prolong their lifespans. On the other hand, the DPE Minister believes in investing limited capital in new generating capacity from renewables as expressed in his response to a parliamentary question.

In another governance-related development, the Finance Minister granted Eskom the exemptions in a special Government Gazette issued on 31 March 2023, which effectively granted Eskom exemption from Section 55 (2) (b) (i) of the Public Finance Management Act (PFMA) for 2022/23 and the following two years. The gazette was later withdrawn but the concern of such a move remains, particularly because the withdrawal was temporary and another major SOE, Transnet, was granted a similar exemption.

On 31 March 2022, National Treasury granted an exemption to Transnet from the specified provisions of the Treasury Regulations issued in terms of the PFMA and National Treasury Instruction No. 2 of 2019/2020. The Eskom exemption entails that the power utility will not need to report fruitless, wasteful, unauthorised, and

irregular expenses in its annual financial statements but rather in its integrated report. This is premised on the possibility that many legacy issues are carried over year after year, thus upsetting efforts to restructure the power utility financially.

The challenge with the Eskom exemption is that the integrated report has no statutory standing and effect thus enabling more financial transgressions. Moreover, Eskom’s financial track record, particularly as it relates to transgressions in its procurement policies, means that it lacks the credibility to adhere to these exemption requirements.

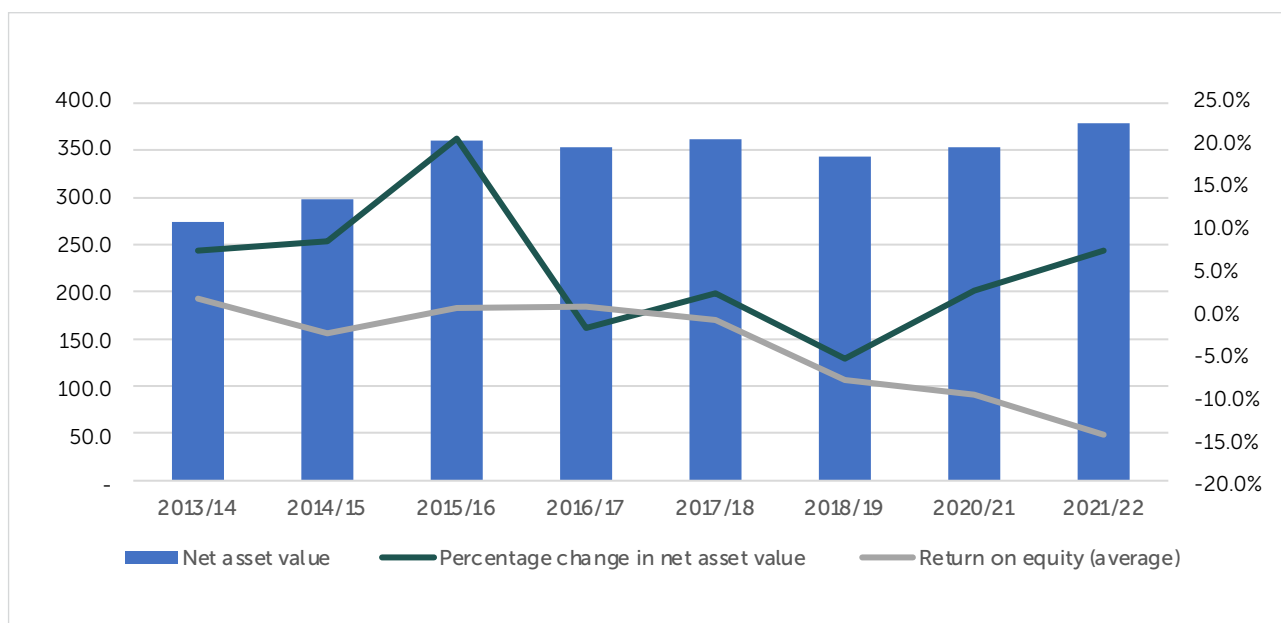
2.3.2 THE FINANCIAL HEALTH OF SOEs

2.3.2.1 Combined net assets and return on investment

The operational and financial health of most SOEs is deteriorating. Their net asset value fell sharply by -5.5 per cent in 2018/19 after increasing by 20.8 per cent in 2015/16, as shown in Figure 2.1 below. The net assets only recovered marginally by 7.4 per cent in 2020/21. Consequently, their net asset value has remained relatively flat, only increasing from R362 billion in 2017/18 to only R379 billion in 2020/21.

The most concerning metric, the return to equity, which measures the ability of SOEs to generate profits, has significantly deteriorated. The average return to equity has decelerated substantially from 1.7 per cent in 2013/14 to (-14.6) per cent in 2020/21. High-cost structures resulting primarily from high debt service costs and employee compensation are SOEs’ main hurdles to profit-making. The COVID-19 pandemic has negatively impacted returns, and muted demand has strangled revenue growth for most SOEs.

Figure 2.1: Combined balance sheets of state-owned companies



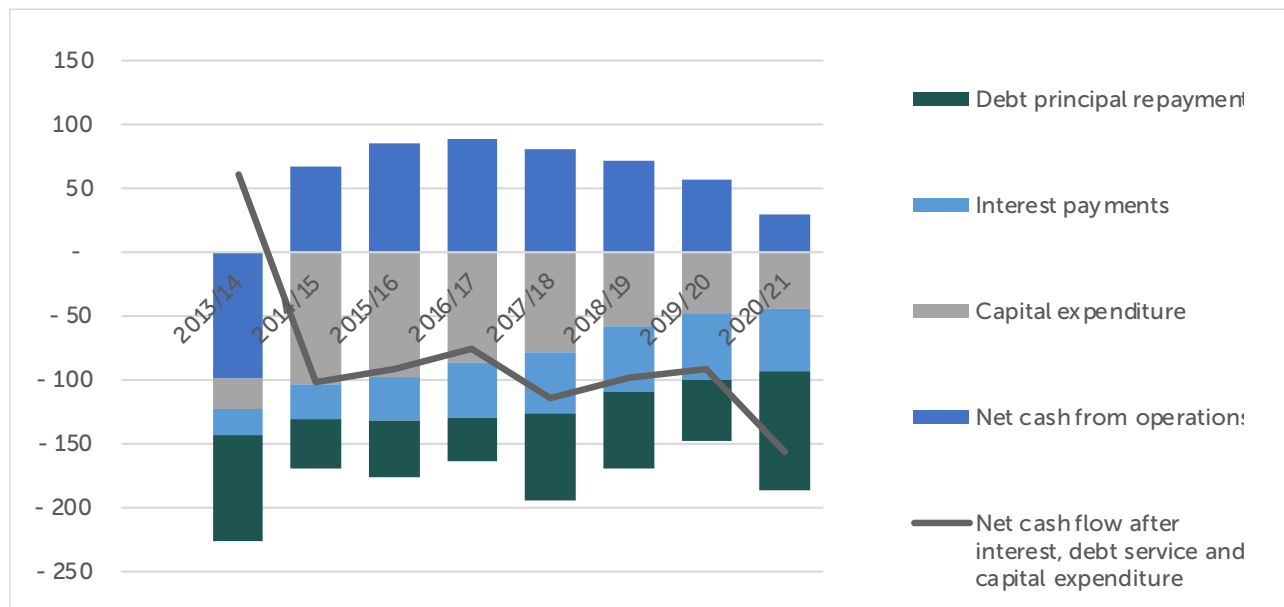
Source: National Treasury Budget Review, 2018-2022

2.3.2.2 Combined cash flows, infrastructure investment, and the cost of debt

The cash flow analysis for SOEs reveals that net cash from operations has significantly declined by 54 per cent from R66.9 billion in 2014/15 to R29.6 billion in 2020/21, as shown in Figure 2.2 below. Net cash available after servicing obligations has been negative since 2014/15, declining from R102 billion in 2014/15 to R157 billion in 2020/21. Infrastructure spending by SOEs has decelerated from R103 billion in 2014/15 to R44 billion in 2020/21. Interest payments accelerated to R52.8 billion in 2019/20 from R28 billion in 2014/15. The poor

financial health of SOEs is a significant impediment to their access to capital markets, thus increasing the dependence of these institutions on the fiscus for sustaining their operations. The combined negative cash flow of SOEs means that these institutions rely on debt to finance operations, thus minimising the scope for capital investment and rendering the financial position unsustainable.

Figure 2.2: Cash flows, infrastructure spending, and interest on the debt for SOEs, 2013/14-2020/21

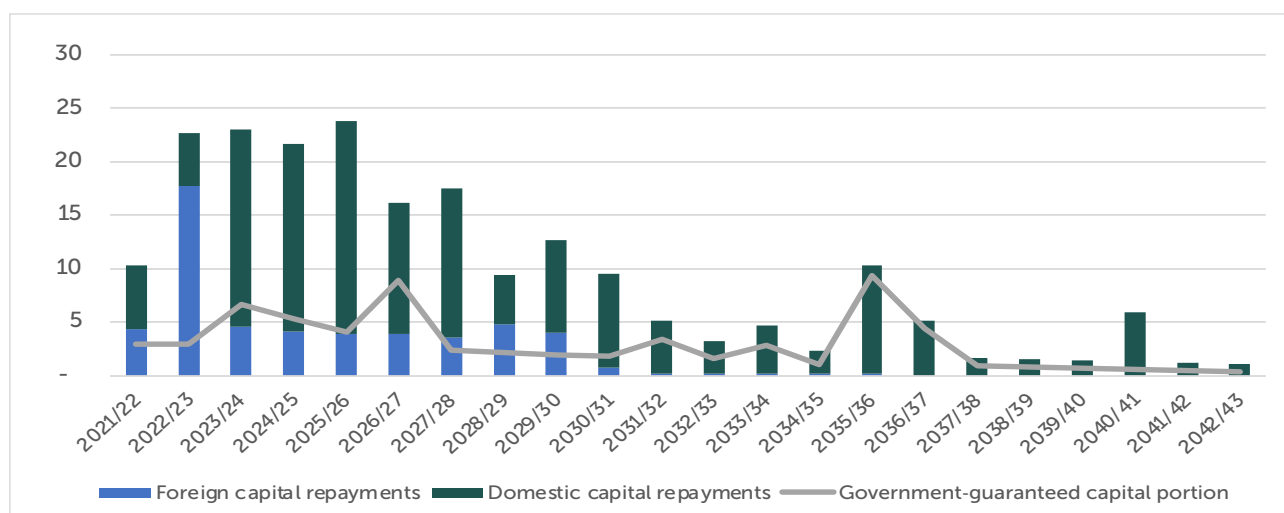


Source: National Treasury Budget Review, 2018-2022

2.3.2.3 Debt maturity and government guarantees

The maturity of SOEs' debt presents a substantial risk to the fiscus. Figure 2.3 below shows that the SOE debt repayments will peak at R24 billion in 2025/26, of which the government guarantees 17 per cent or R4 billion. In 2026/27, debt repayment by SOEs will amount to R16 billion, of which more than half (55 per cent) will be guaranteed by the government. Over the medium term, R67.4 billion in debt falls due, of which government guarantees 22 per cent or R14.9 billion. The poor financial health of SOEs means that this debt may require refinancing. If refinancing this debt is not possible, the government is obligated to make the guarantees available, thus impacting the already precarious public finances.

Figure 2.3: Debt maturity profile of major SOEs



Source: National Treasury Budget Review, 2018-2022

2.3.2.4 Government financial support to SOEs

Most SOEs, including Eskom, SAPO, SABC, Denel, and SAA, have received direct financial support from the fiscus. The direct fiscal transfer to SOEs transfers accelerated from 1 to 1.6 per cent of GDP between 2015/16 and 2020/21. In the past 12 years, the government has paid out a total of R162 billion to financially distressed SOEs, as shown in Table 2.1. Eskom accounts for 82 per cent of the total fiscal transfers. In 2019/20, the government allocated R49 billion to Eskom and committed R112 billion in medium term funding.

Table 2.1: Fiscal transfers to SOEs, 2008/09-2022/23

R billion	Eskom	South African Airways	Denel	South African Express	South African Broadcasting Corporation
2008/09	10.0	–	–	0.4	–
2009/10	30.0	1.5	–	–	–
2010/11	20.0	–	–	–	–
2011/12	–	–	–	–	–
2012/13	0.7	–	0.4	–	–
2013/14	–	–	–	–	–
2014/15	–	–	–	–	–
2015/16	23.0	–	–	–	–
2016/17	–	–	–	–	–
2017/18	–	10.0	–	–	–
2018/19	–	5.0	–	1.2	–
2019/20	49.0	5.5	1.8	0.3	3.2
2008/09-2019/20 (history)	132.7	22.0	2.2	1.9	3.2
2020/21	56.0	10.3	0.6	0.2	–
2021/22	33.0	4.3	–	–	–
2022/23	23.0	1.8	–	–	–
2020/21-2022/23 (MTEF)	112.0	16.4	0.6	0.2	–
Total	244.7	38.4	2.8	2.1	3.2

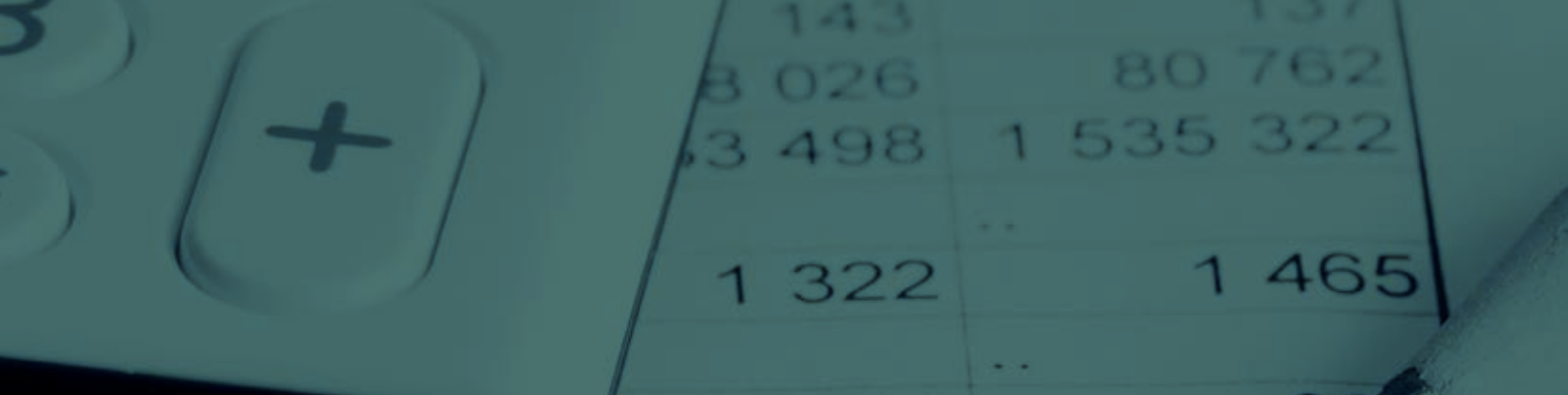
Source: National Treasury, Budget Review, 2019

2.3.2.5 Eskom

Business model and operations

Eskom is a critical player in the South African energy sector, generating more than 95 per cent of the country's electricity with a 40 per cent share of Africa's electricity supply. It controls the national transmission grid and distributes around 50 per cent of its electricity directly to industrial and residential consumers, while the residual goes to municipalities. Eskom is among the top 20 power utilities in the world, using the installed generation capacity as a yardstick (Reuters, 2019). Eskom has battled to satisfy the electricity demand, thus resulting in intermittent power cuts since 2007. The rollout of the electrification programme was implemented without any contingency plan to increase generation capacity, despite the government's knowledge of the likelihood of electricity demand surpassing generation capacity in 2007 (Department of Minerals and Energy, 1998).

Eskom has a monopoly on generating and transmitting electricity in South Africa. It shares distribution with municipalities. Electricity generation is burdened with much of Eskom's debt, while the transmission consists of one of the world's most extended electricity transportation lines. Electricity distribution is hampered because municipalities can utilise revenue from selling electricity for other uses. Governance missteps and operational failures at Eskom have translated into financial underperformance and an exodus of critical skills.

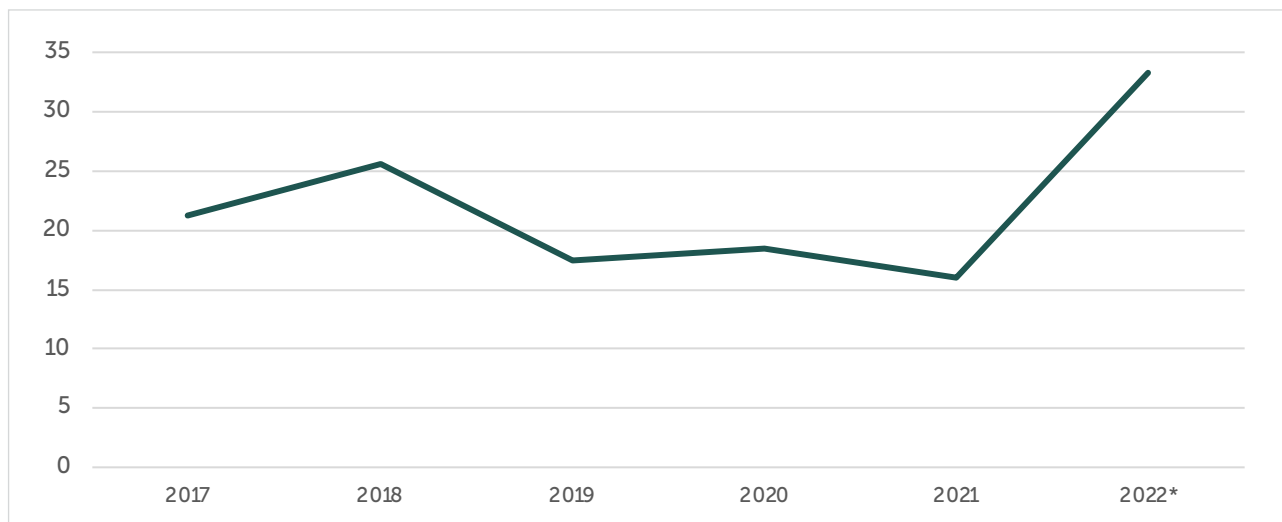


Eskom has an enormous operating budget for maintenance, refurbishment, staffing costs, consulting, and service contracts. The most significant component of its finances is coal, which generates most of Eskom’s electricity. It is this component of its budget that the granting of over-priced coal contracts has occurred in the past, and non-transparent governance practices have materialised. The cost overruns in building the Medupi and Kusile power stations have further impacted Eskom’s finances. The new build programme cost overruns, the significant operating budget, and the over-priced coal contracts are aggravated by the widespread culture of non-payment by some of Eskom’s major clients, especially municipalities.

Eskom financial analysis

As measured by key financial ratios, the financial health of Eskom reflects weak economic performance as both the profitability and solvency ratios are deteriorating. The earnings before interest, taxes, depreciation, and amortisation (EBIDTA) margin for Eskom, which measures its operating profit as a percentage of its revenue, declined from 25.57 per cent in 2018 to 16.06 per cent in 2021, as shown in Figure 2.4 below, implying that Eskom’s operating costs are very high compared to total revenue. The latest EBIDTA calculated using Eskom interim results for the six months ended 30 September 2021 shows a significant improvement to 33.22 per cent.

Figure 2.4: Eskom EBIDTA Margin, 2017-2022



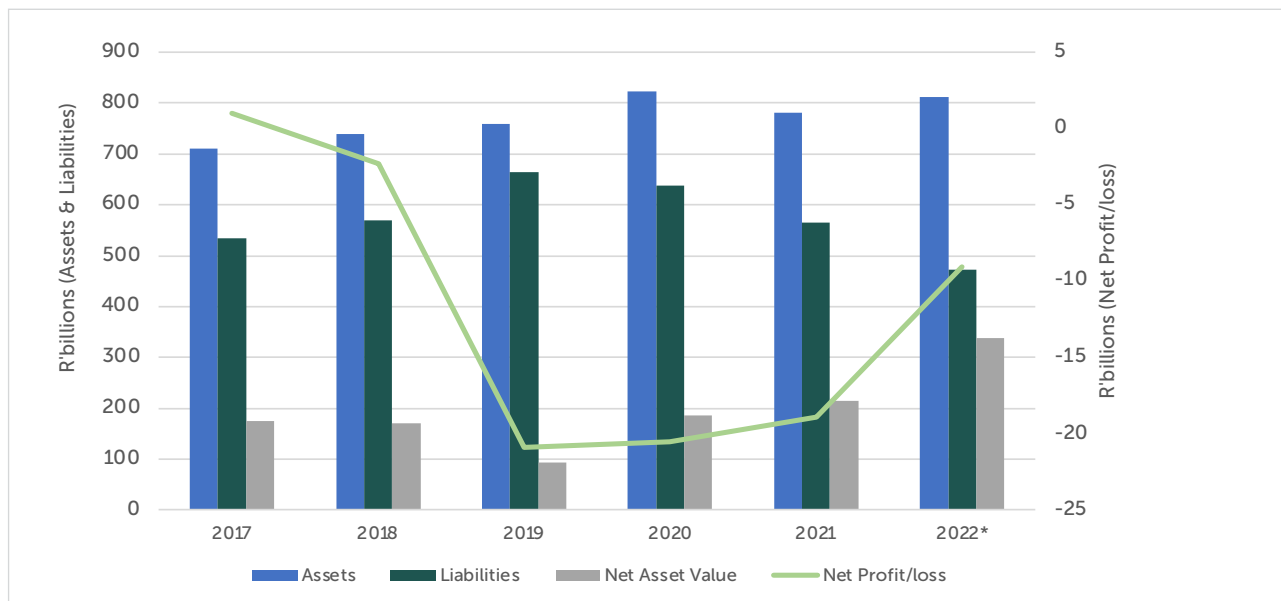
Source: Eskom Annual Report, 2021

*2022 ratio based on Eskom interim results for the six months ended 30 September 2021

The debt-to-equity ratio for Eskom, that measures the degree to which a company is financing its operations through debt as opposed to own funds, increased from 2.77 in 2018 to 3.5 in 2019 and remained high at 2.25 in 2021. This means that Eskom uses more debt than equity to fund its business.

The net asset value for Eskom decreased from R175 billion in 2017 to R170 billion in 2018, then increased to R215 billion in 2021, as shown in Figure 2.5 below. Eskom’s liabilities increased from R534 billion in 2017 to R637 billion in 2020, and its net loss increased from R2.3 billion in 2018 to R20.9 billion in 2019. It remained high at R20.5 billion in 2020 before marginally declining to R18.934 billion in 2021. The projected net loss for 2022 is R9.1 billion.

Figure 2.5: Asset, liabilities and profit/loss margins for Eskom, 2017-2022



Source: Eskom Annual Reports, various editions

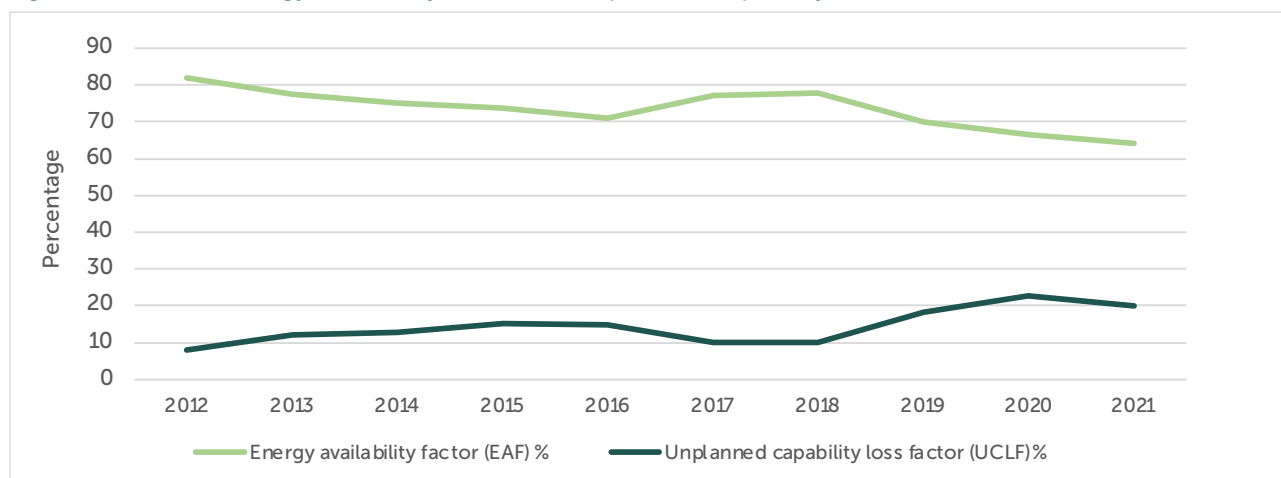
*2022 figures are based on Eskom interim results for the six months ended 30 September 2021

Eskom continues to face liquidity constraints resulting from high debt service costs of the outstanding debt, working capital requirements, escalating municipal arrear debt, and sub-investment grade-level credit ratings. This makes Eskom heavily reliant on government guarantees and equity injections for its operations.

Eskom operational analysis

Eskom's technical performance metrics are deteriorating. High Eskom energy availability factor and unplanned capability loss factor translate into declining and unreliable performance, leading to higher maintenance costs. The electricity availability factor (EAF) measures the actual energy output of an electricity-generating device in relation to the energy output that would be produced if it operated at its rated power output. Figure 2.6 below shows that Eskom's EAF has significantly decelerated from 82 per cent in 2012 to 64.2 per cent in 2021. Between January and June 2022, Eskom's EAF further declined to 59.4 per cent. The unplanned capability loss factor measures how time generation units were taken offline for unplanned outages. Eskom's unplanned capability loss factor has increased substantially from 8 per cent in 2012 to 20 per cent in 2021.

Figure 2.6: Eskom energy availability factor and unplanned capability loss factor

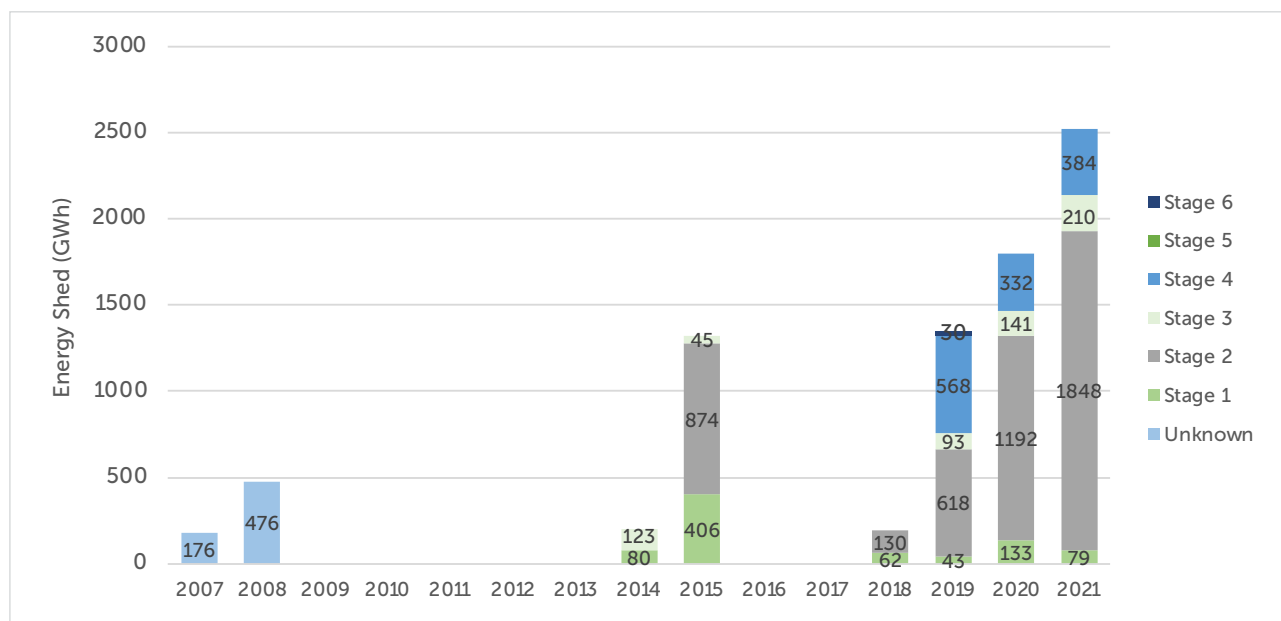


Source: Eskom Annual Report, 2021



South Africa’s escalating loadshedding challenge is significantly worsening. Figure 2.7 below shows that loadshedding in 2021 amounted to 2455 Gigawatt hours (GWh), reflecting a 37 per cent increase from the 1798 GWh loadshedding experienced in 2020. The intensity of the load-shedding has also increased. Stage 3 load-shedding increased from 141 GWh in 2020 to 210 GWh in 2021. Similarly, stage 4 load-shedding reached 384 GWh in 2021, up from 332 GWh in 2020. Eskom load-shedding has intensified in 2022. According to the Council for Scientific and Industrial Research (CSIR), 2022 overtook 2021 as the most intensive loadshedding year yet, at four times more. More loadshedding was experienced in December 2022 on its own than in any year before. It is the first year that most loadshedding was in stage 4 (3824 GWh), not stage 2. The highest level of loadshedding implemented by Eskom thus far, Stage 6, reached 996 GWh in 2022.

Figure 2.7: Eskom Loadshedding in Gigawatt hours, 2007-2021



Source: Council for Scientific and Industrial Research, 2021

Eskom load-shedding represents the most crucial constraint to economic growth and has significant socio economic ramifications for the country. Table 2.2 below shows that between 2007 and June 2022, the cumulative hours of loadshedding in South Africa amounted to 5328 hours of electricity blackouts, which translates into 216 days of electricity outages. Whereas load-shedding was initially implemented sporadically, it has increased annually since 2018. It is worth noting that the cumulative hours of loadshedding in the first seven months of 2022 have surpassed the 2021 total.

Table 2.2: Eskom loadshedding in hours, days and GWh, 2017-2022

	Duration of outages (hours)	Days	Energy Shed (GWh)
2007	120	5	176
2008	320	13	476
2009			
2010			
2011			
2012			
2013			
2014	121	5	203
2015	852	36	1325
2016			
2017			
2018	127	5	192
2019	530	22	1352
2020	859	36	1798
2021	1169	43	2521
2022	1230	51	2276
	5328	216	10319

Source: Council for Scientific and Industrial Research, 2022

Notwithstanding the underperformance outlined above, Eskom continues to receive significant support from the fiscus. In the 2020/21 financial year, Eskom utilised R281.6 billion of its R350 billion government guarantee facility. An additional R7 billion was further allocated to Eskom. The Minister of Finance further approved a special dispensation tenable to Eskom to access additional guaranteed debt of R42 billion in 2021/22 and R25 billion in 2022/23. The government has further provided Eskom with equity support amounting to R31.7 billion in 2021/22.

Regarding reforms, Eskom has missed its deadline of 31 December 2021 to complete the legal separation of its transmission unit, with the generation and distribution entities expected to complete the legal separation by 31 December 2022.

2.3.2.6 Transnet

Business model and operations

Transnet is one of the most prominent players in the freight logistics industry and the transportation of goods in South Africa and some parts of Africa. Transnet is beset by historical and structural challenges, paramount of which are the disproportionate transport demand requirements of inland mining deposits far from the ports. South Africa's economic activity is primarily concentrated inland. Its non-containerized export activity also occurs inland (Havenga et al., 2013).

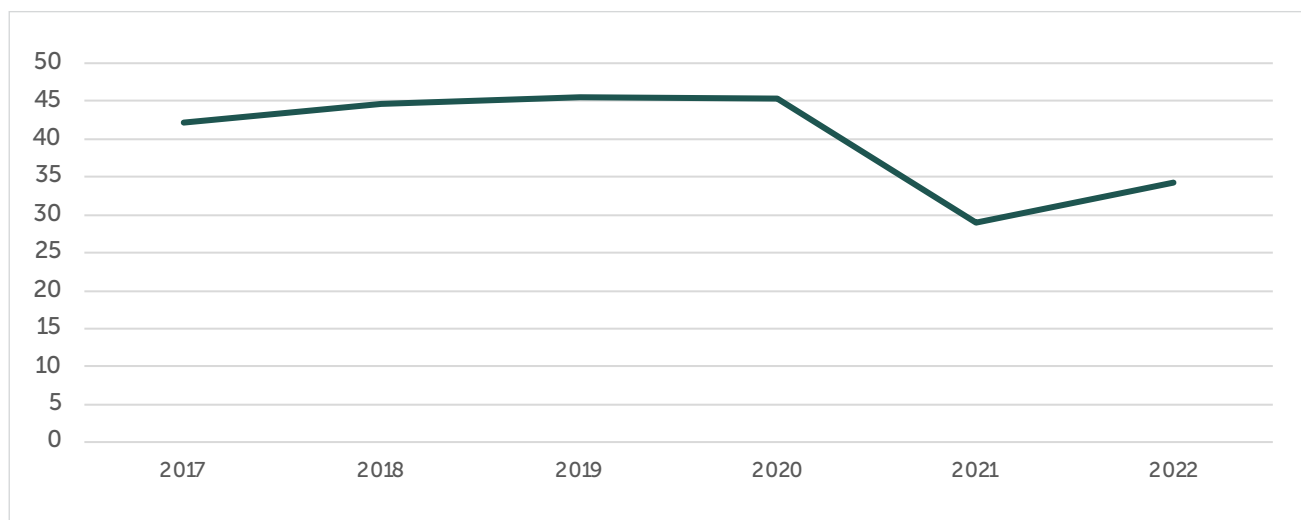
These structural challenges are exacerbated by the chronic nonexistence of a long-term strategic vision for infrastructure planning in South Africa. Currently, rail transport has a share of less than 20 per cent of general freight and less than 10 per cent of passengers. A similar trend exists in bulk minerals freight (Department of Transport, 2017). The significant market share for road-going side-tipper interlinks results from the deregulation of freight transportation through the Transport Deregulation Act of 1988. The growing market share of road transporters has led to significant investment by road transporters and logistics companies. The deregulation caught Transnet ill-prepared. The period before the deregulation contributed to the absence of a strategic vision for infrastructure planning, particularly rail infrastructure, because it had created a monopoly for Transnet that resulted in chronic underinvestment in the rail and ports network (Pieterse et al., 2016).

The rail system in South Africa is currently marred by a capital investment backlog and insufficient funding, outdated and old infrastructure, declining rolling stock, and obsolete technologies. These challenges are exacerbated by a deficient regulatory framework, particularly for freight rail and port terminal operations. The inadequacies in the system encompass the absence of a settlement process; the lack of rules on pricing, investment, and access; and the lack of an autonomous regulator with statutory investigative, enforcement, and decision-making powers.

Transnet financial analysis

The financial health of Transnet, as measured by key financial ratios, also reflects weak economic performance as the profitability and solvency ratios are deteriorating. The EBIDTA margin for Transnet decreased from 45.6 per cent in 2019 to 28.9 per cent in 2021, reflecting less profitability, as shown in Figure 2.8 below.

Figure 2.8: Transnet EBIDTA, 2017-2022

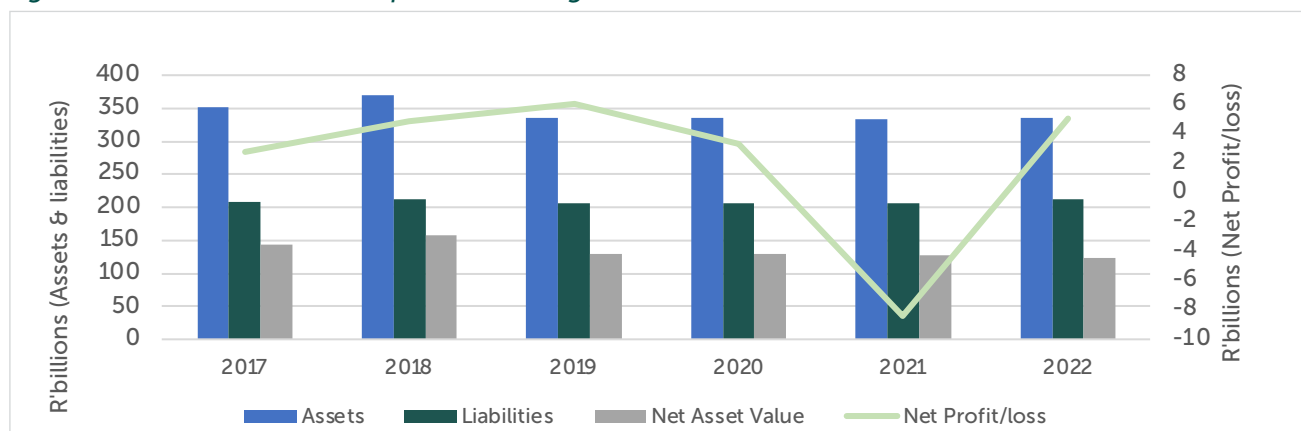


Source: Transnet Annual Reports, various editions

The debt-to-equity ratio increased from 0.43 in 2018 to 0.49 in 2019, implying that Transnet increasingly uses debt than equity to fund its business. It improved marginally to 34.3 in 2022.

Transnet's operational performance has declined recently, and its financial position remains marginally constrained. Over the four-year horizon between 2017 and 2021, Transnet's net value decreased from R143 million to R129 million. Transnet posted a net loss of R8.4 billion in 2020/21. In 2022, Transnet made a profit of R5 billion.

Figure 2.9: Assets, liabilities and profit/loss margins for Transnet, 2017-2022



Source: Transnet Annual Reports, various editions

Transnet operational analysis

Export coal

Transnet's volumes of coal exports decelerated by 7.76 per cent to 66.9 metric tons (mt) in 2021 from 72,53 mt in 2020. This means that Transnet missed its target of 74.93 mt by 10.72 per cent. The underperformance is ascribed to tippler breakdowns at the Richards Bay Coal Terminal, derailment eventualities, and the scarcity of 22E locomotives resulting from contractual irregularities⁸.

Export iron ore

The volume of iron ore exports conveyed by Transnet declined by 9.77 per cent from 58.85 mt in 2020 to 53 mt in 2021, thus missing the Transnet target of 59.50 mt by 10.76 per cent. The underperformance is attributed to, amongst other things, derailment episodes and the temporary closure of the Olifants River Railway Bridge due to hazardous infrastructure settings, network speed restrictions, and the breakdown of tippers⁹.

General freight

The general freight volumes decelerated by 21,72 per cent from 63,4 mt conveyed by rail in 2021 to 80,99 mt in 2020, missing the Transnet target of 80,58 mt by 21,32 per cent. In addition to the effect of COVID-19, the underperformance resulted from Transnet operational glitches, including derailment occurrences, an escalation of theft and vandalism incidences across all corridors, tenacious locomotive malfunctioning and reliability matters, speed limitation within the network, and tippler and offloading impediments at several ports¹⁰.

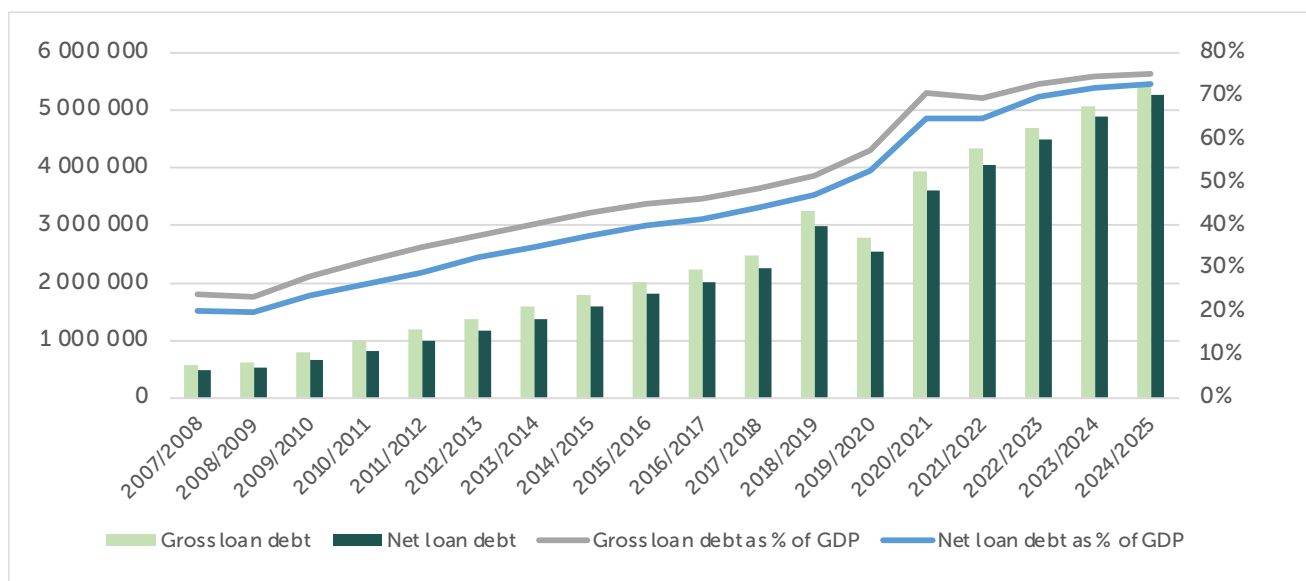
Freight Rail transported 517 889 Twenty-foot Equivalent Units (TEUs) through major corridors in 2021, reflecting a 22 per cent decline from the 660 894 TEUs transported in 2020. The number of cars transported by Transnet in terms of imports declined from 35 932 in 2020 to 8 434 in 2021, whereas the export units decelerated from 99 754 in 2020 to 80 381 in 2021¹¹.

2.3.3 Government debt and contingent liability management

2.3.3.1 Government debt and contingent liabilities analysis

In 2008/09, the gross loan debt was only R627 billion, or 23.6 per cent of GDP. Since then, gross loan debt has increased almost six-fold to R4.3 trillion or 69.5 per cent of GDP in 2020/21. The gross loan debt is projected to increase further to reach R5.4 billion or 73 per cent of GDP in 2024/25, as shown in Figure 2.10 below.

Figure 2.10: Gross loan, net loan debt, gross loan as a percentage of GDP, net loan debt as a percentage of GDP, 2007/08-2024/25

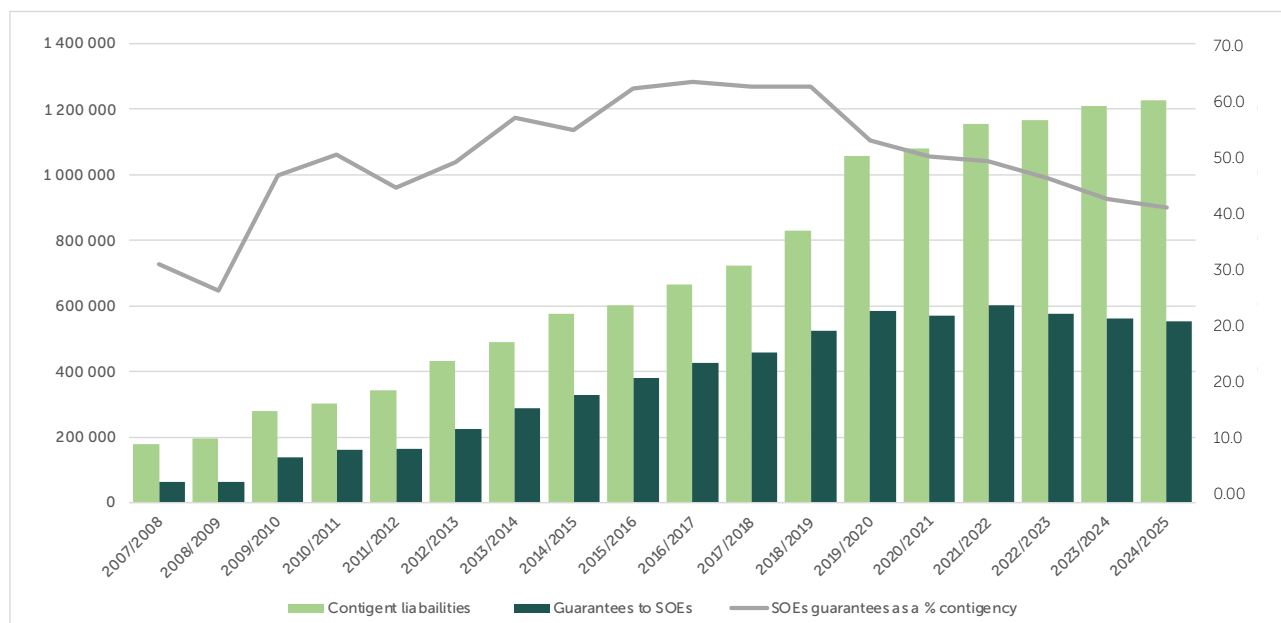


Source: National Treasury Budget Review, 2018-2022

⁸See Transnet Freight Rail 2021 available <https://www.transnet.net/InvestorRelations/AR2021/Transnetper cent20Freightper cent20Rail.pdf>

The total contingent liabilities amounted to R195 billion in 2008/09, of which government guarantees to SOEs constituted R63 billion, representing only 32 per cent of contingent liabilities, as shown in Figure 2.11 below. Contingent liabilities are projected to reach R1.1 trillion in 2020/21, of which R569 billion will be government guarantees to SOEs, accounting for more than half of the total contingent liabilities (53 per cent). In 2024/25, contingent liabilities are projected to increase to R1.2 trillion, and more than 40 per cent will be government guarantees to SOEs. Contingent liabilities are increasingly driven by government guarantees to SOEs, constituting a significant risk to the fiscus, particularly when SOEs' financial and operational performance is weak, as demonstrated above. If the guarantees to SOEs materialise, government debt will increase, and the fiscal position will worsen, thus presenting significant developmental challenges.

Figure 2.11: Contingent liabilities and government guarantees to SOEs, 2007/08-2024/25



Source: National Treasury Budget Review, 2018-2022

2.3.3.2 Government guarantees and exposure to SOEs

Government exposure to SOE is very high. Table 2.3 below shows that government support for Eskom, in the form of guarantees, increased from 6.2 per cent of GDP in 2019/20 to 6.3 per cent in 2020/21. The total guarantee to all the SOEs in Table 2.3 increased from 12.2 per cent of GDP in 2019/20 to 12.4 per cent in 2021/22. There is no correlation between the conditions attached to government issuance of guarantees and the reasons why guarantees are applied for in the first instance. The swift acceleration of government guarantees between 2008/09 and 2018/19 is mainly attributed to SOEs' poor governance; inappropriate business models, policy uncertainty; and costly policy decisions.

The failure to address the problem source when financing decisions are made translates into ill-advised guarantee support. The government is continuously being confronted by consecutive guarantee applications and financing requests with no tangible results to justify them. Consequently, government guarantees have been increasing while the SOEs' financial performance has been deteriorating, as demonstrated by net profit losses, unsustainable debt levels, and worsening liquidity ratios. This unhealthy virtuous cycle has been reoccurring as weak SOEs' financial performance has led to more government guarantees to SOEs ensuing in higher fiscal vulnerability, higher financing costs, and deteriorating credit rating outcomes.

Table 2.3: Government guarantees and exposure to SOEs, 2019/20–2021/22

	2019/20		2020/21		2021/22	
	Guarantee	Exposure	Guarantee	Exposure	Guarantee	Exposure
Public Institutions	8.5%	7.3%	10.4%	6.9%	9.0%	8.7%
Eskom	6.2%	5.7%	6.3%	5.4%	5.6%	5.2%
SANRAL	0.7%	0.7%	0.7%	0.7%	0.6%	0.8%
Trans-Caledon Tunnel Authority	0.8%	0.2%	0.8%	0.2%	0.4%	0.2%
South African Airways	0.3%	0.3%	0.3%	0.1%	0.3%	0.0%
Development Bank of Southern Africa	0.2%	0%	0.2%	0.0%	0.2%	0.0%
Land and Agricultural Bank of South Africa	0.2%	0.1%	0.2%	0.1%	0.2%	0.1%
Transnet	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Denel	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Independent power producers	3.5%	2.8%	3.2%	3.3%	3.3%	2.8%
Public -private partnerships	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%
Total	12.2%	10.3%	10.2%	12.4%	12.4%	9.6%

Source: National Treasury Budget Review, 2022

2.3.3.3 Sources of fiscal risks from SOEs

A soft budget constraint occurs when a government fails to credibly commit not to bail out an enterprise that it effectively controls in terms of ownership. The existence of soft budget constraints distorts the incentives of SOEs to operate efficiently and emboldens risk-taking. Whereas private enterprises functioning in competitive markets are most likely to go bankrupt if they operate inefficiently, SOEs, particularly those mandated to provide social goods and services, are unlikely to face similar consequences. This means that the SOEs' incentives to control costs and improve the quality of their output are greatly diminished.

Quasi-fiscal operations

In most instances, soft budget constraints result from a directive from governments to SOEs obliging them to pursue public policy objectives without commensurate resources. These quasi-fiscal burdens arise from imposed prices, the labour market, or other regulations. The continual implementation of these uncompensated quasi-fiscal activities results in loss accumulation, underinvestment, and excess borrowing by SOEs. Consequently, the government must bail out these SOEs through fiscal transfers, equity increases, debt assumption, and restructuring. The government's rationale for using SOEs for uncompensated, quasi-fiscal operations is multi-fold. The primary sources of quasi-fiscal burdens are as follows:

- Governments usually fix regulated prices for goods and services provided by SOEs at levels that do not permit efficient operations. While some countries have progressed in this regard by instituting independent agencies for regulating, for instance, energy and utility prices, using transparent formulas, SOEs continue to incur uncompensated costs because regulated tariffs often need to be adequately adjusted to reflect cost increases. Moreover, government headline inflation rate moderation is usually achieved by suspending statutory formulas. The prices of SOE-provided goods and services with a significant weight in the consumer price index are partially frozen or adjusted.
- In some countries, the SOEs' employees enjoy the same rights as the country's civil servants. This means the ability of the SOEs to adapt the size of their workforce to changing demand levels, technological changes, or financial constraints is severely limited. The SOEs could also be forced to comply with a rigid pay structure, resulting in high floors for wages paid to low-skilled workers and an inability to attract highly skilled workers. Even in countries where the SOEs' employees adhere to the same legislative frameworks

as private enterprises, the limited flexibility has made it politically difficult for them to resize their workforce in response to cyclical and structural factors. Moreover, the power of trade unions further complicates workforce management, especially in the larger SOEs.

- SOEs responsible for public services such as electricity, water, and sanitation are typically directed to undertake costly investments to extend their coverage, especially in remote rural areas. The SOEs are usually not compensated for the original investment and the additional costs of providing the services at a loss. Governments often use their SOEs to outsource unrelated social activities to their core businesses.
- SOEs are often legally obliged to source raw materials and equipment from relatively costlier national suppliers. This results in substantial delays and cost overruns in implementing large projects.
- To increase transparency, SOEs must often adhere to cumbersome public procurement regulations. This significantly increases their regulatory burden and reduces their competitiveness.
- SOEs are usually forced to contend with payments in arrears from national and subnational governments or other SOEs and distribution losses resulting from the unauthorised usage of their services.
- SOEs can often not make profit-maximising decisions because political imperatives dictate the locations and types of investment, recruitment of staff, and procurement. This results in cost increases, reductions in efficiency, and an implicit expectation by the SOEs' management to be bailed out in the event they run into financial distress. In more extreme, but not uncommon cases, such interventions are accompanied by outright corruption for personal or party gains.

Excessive resource extraction from SOEs on the part of their government owners

In most Organisation for Economic Co-operation and Development (OECD) countries, the government guides the SOEs' boards on expected rates of return, often in the context of their approval of annual or long-term corporate plans. Similarly, most OECD countries have established guidelines on how SOEs should distribute dividends. Some countries set dividend payouts as a fixed percentage of the SOEs' profits, while others link expected dividend distribution to optimal capital structure guidelines. Explicit rate-of-return requirements are not standard in most developing countries.

However, in some developing countries, regulators consider rate-of-return considerations when setting tariffs. In the main, though, dividend distribution policies in developing countries tend to be primarily dictated by short-term government budgetary needs, translating into less than optimal capital structures and weakened investing capacity. The discretionary nature of dividend distribution policies also makes it harder for SOEs to forecast the amount of internal financing available and plan future investments.

Preferential access of SOEs to financing

Preferential access to financing is one of the primary sources of soft budget constraints for SOEs. It distorts their incentives for efficiency because they know they can depend on government bailouts and inspires excessive borrowing, ultimately resulting in a debt-fueled financial crisis. The different forms of preferential access are as follows:

- Governments typically lend directly to their SOEs at below-market interest rates or use state-owned financial institutions to lend to non-financial SOEs. Such activities are relatively uncommon in the OECD countries because of the restrictions imposed on state aid and the declining state ownership of financial institutions. However, it is more common in developing countries, where the state has a significant presence in the financial sector. In Peru, Fonafe offers short-to-medium term loans to its enterprises. In Argentina, the share of loans to non-financial SOEs in the portfolio of the Bank of the Argentine Nation has grown significantly over the last decade. The Brazilian Development Bank provided 20 to 40 per cent of all its loans to SOEs over the last decade.
- Government usually guarantees SOEs' borrowings and security issues. Most OECD countries do not provide explicit guarantees except for a limited number of large SOEs such as railways, airports, and financial enterprises. Some OECD countries levy fees on these guarantees. However, in most developing countries,

government guarantees are commonly used with no fees charged.

- In instances with no explicit guarantees, financial markets expect the government to step in if one of its SOEs is about to default in developing countries.
- Most developing countries depend on administrative controls for financing of SOEs and SOEs must obtain approval from the government for borrowing applications, except for short-term loans to finance working capital requirements. The government approvals are premised on evaluating the proposed usage of the debt and the SOE's ability to service it. In reality, though, most approvals are discretionary.
- Administrative control systems could translate into soft budget constraints because:
 - They initiate bargaining between the government and the SOEs.
 - Governments might find it politically unpalatable not to bail out SOEs if they were responsible for the financial difficulties being faced by the SOEs.
 - Financial markets would understandably see the government guaranteeing the loans or bond issues it had approved.
- Therefore, SOEs' access to financing must be conditional on their ability to meet clear, pre-specified, and well-publicised criteria assessing their capacity to service the debt.

2.3.4 Information asymmetries

Several types of information asymmetries could also result from soft budget constraints. Some impact the extent of control that shareholder governments have over SOEs, while others constrain the due diligence financial markets can perform on the SOEs.

Information asymmetries between SOEs and the government

The relationship between governments and SOEs is usually defined by principal-agent problems (Musacchio, Pineda Ayerbe, and Garcia, 2015). The objectives of the government (the principal) are to pursue specific policy goals, primarily correcting market failures and maximising the return generated by the SOEs. These goals may only partially align with the SOE's management (the agents). They might be more attracted to expanding the firm's size, securing more capital, pursuing other investments, or increasing their financial gains. The management manipulates the fact that it typically has more information about the SOE's operations and finances than the shareholder government. Such asymmetries could be exacerbated by the following:

- The delegation of oversight of individual SOEs to different ministries with different policy objectives. If the SOE has multiple principals and no central coordination mechanism, it may be incentivised to minimise the government's oversight by strategically limiting the information it provides to each principal.
- The manifestation of imprecise and inadequately enforced government guidelines regarding the following:
 - SOEs' planning, budgeting, and investment selection processes.
 - The specifics and regularity of information provided to the government
 - The naming, calculation, and disclosure of risk factors affecting the SOE's projected operational and financial results.
 - The steps to be taken in the event of underperformance.
 - Weaknesses in the accounting and internal and external auditing systems for SOEs.
 - Inadequate resources in the units responsible for monitoring the SOEs.

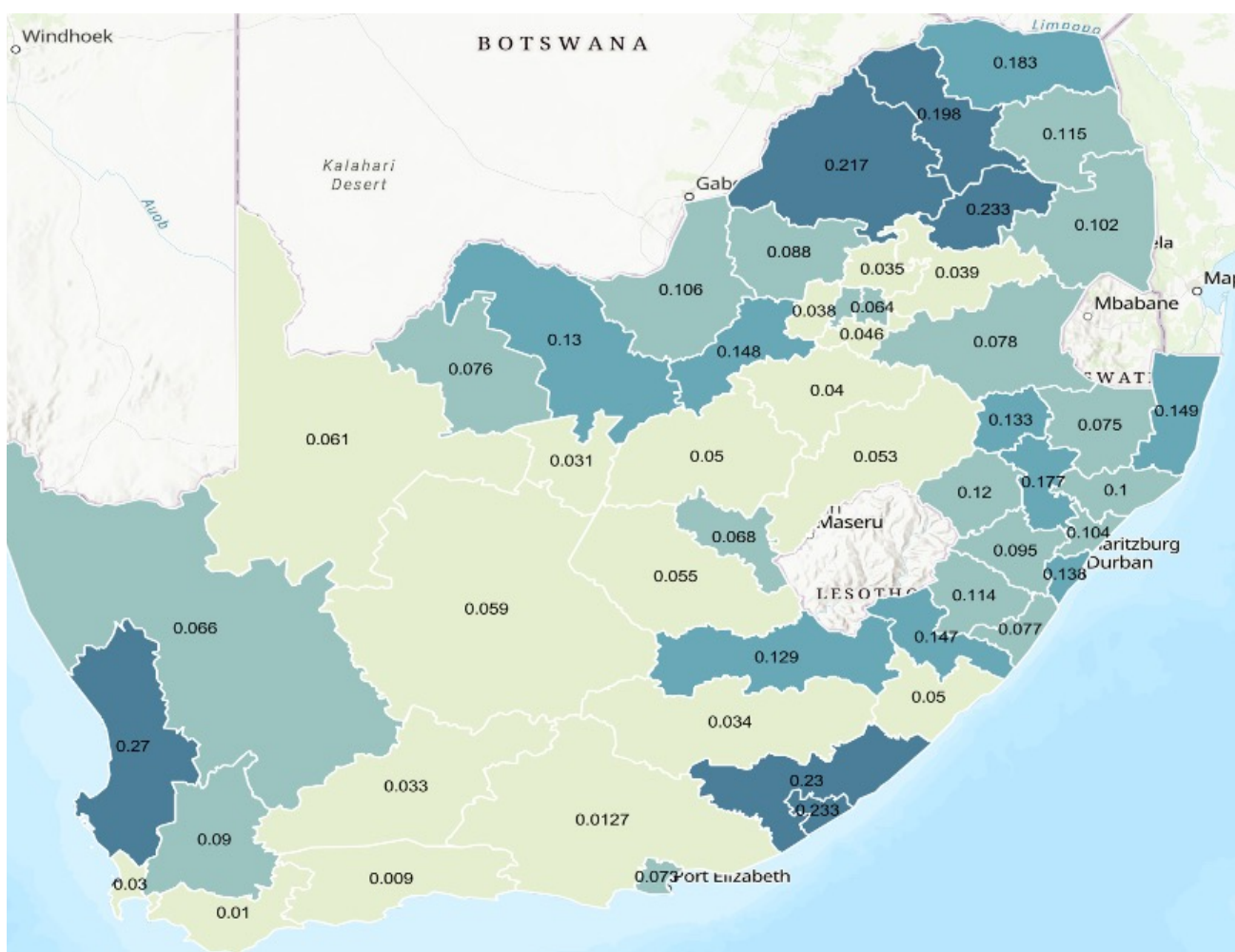
The seriousness of these information asymmetries varies considerably across countries and over time, reflecting the country's level of development, the size of its SOE sector, and the quality of its institutions. Some developing countries have robust oversight and control mechanisms such as SOHCs or inter-ministerial committees. In these countries, the SOEs are given detailed guidance on budget and investment decisions and must submit comprehensive financial reports on time. However, some SOEs do not have to abide by the general rules. Consequently, performing any risk analysis is impossible due to the lack of operational and financial data.

2.3.5 The fiscal feasibility of the BIG

2.3.5.1 Sub-national profiles of grant recipients

The South African Social Security Agency (SASSA) distributes over 18 million monthly grants to impoverished citizens. The immense demand for social grants emphasises how the dwindling economy affects the livelihoods of citizens and what is expected from the government to save South Africans from complete destitution. High levels of poverty and inequality permeate the country's social structures and regions. Each province is unique in terms of its economic productivity and available resources. In times of low economic growth, all sectors are affected – yet some provinces may experience higher poverty levels. This is attributed to the current market conditions and existing structural barriers from Apartheid that limit the economic integration of all South Africans.

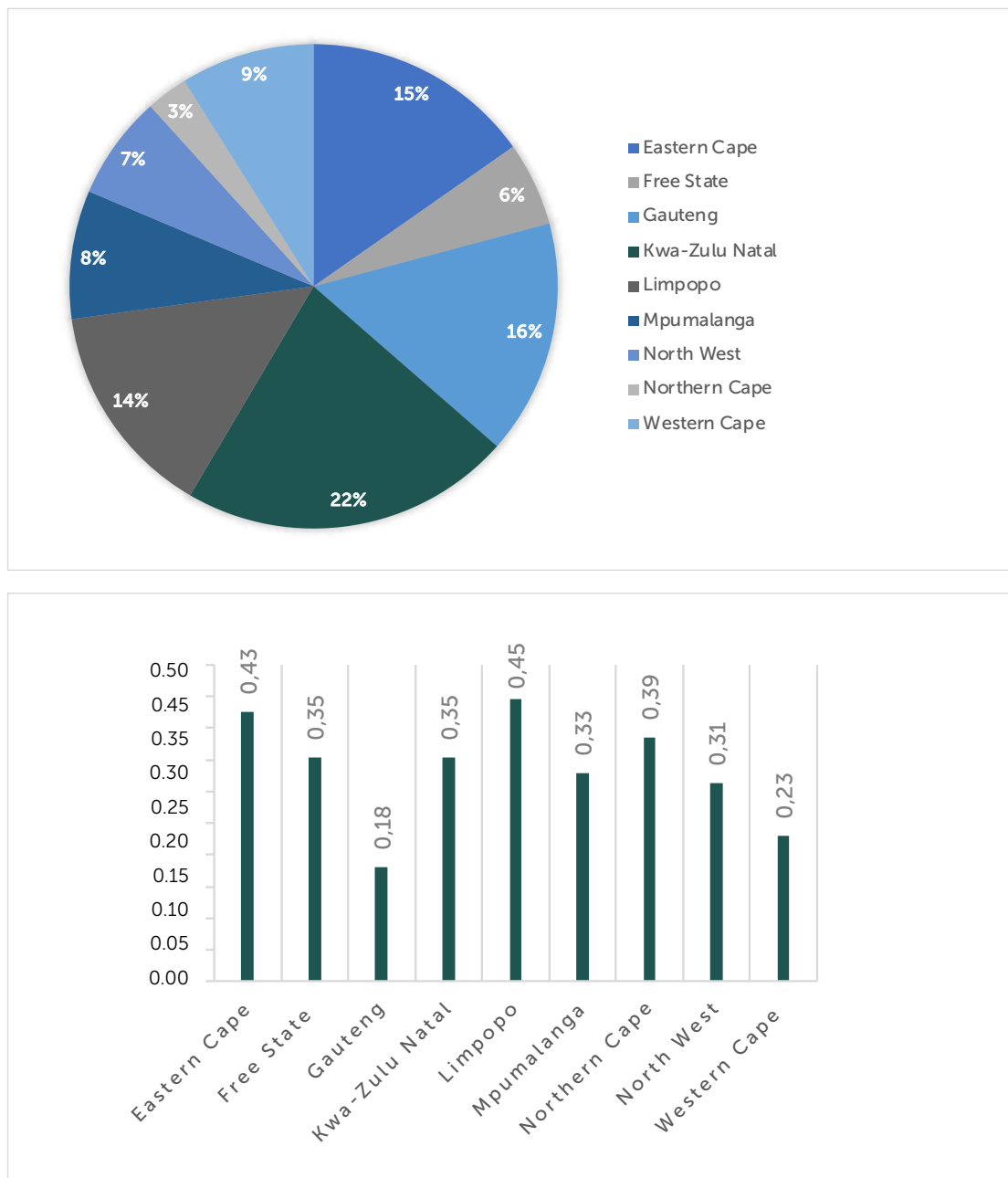
Figure 2.12: Poverty headcount at district level



Source: Commission's illustration using Statistics South Africa (2016)

The government uses social grants to support poverty-stricken citizens. Therefore, the efficacy of targeting can be determined by observing where grant recipients are distributed around the country. Figure 2.12 depicts poverty headcounts on a district level. Higher poverty levels are concentrated in the northern and eastern provinces of the country, such as Limpopo, Mpumalanga, the North West and Kwa-Zulu Natal. There are poverty hotspots visible in the Eastern and Western Cape, portrayed by the deep blue shading in relatively lighter areas.

Figure 2.13: Share of social grants across provinces (above) and per capita social grant receipt (below)



Source: Commission's calculations using SASSA (2023)

KwaZulu-Natal, Gauteng, Limpopo, and Eastern Cape have the largest shares of social grants. The largest share belongs to KwaZulu-Natal, that receives 22 per cent of all social grants in circulation. The social grant share per province needs to be viewed from a per capita perspective.

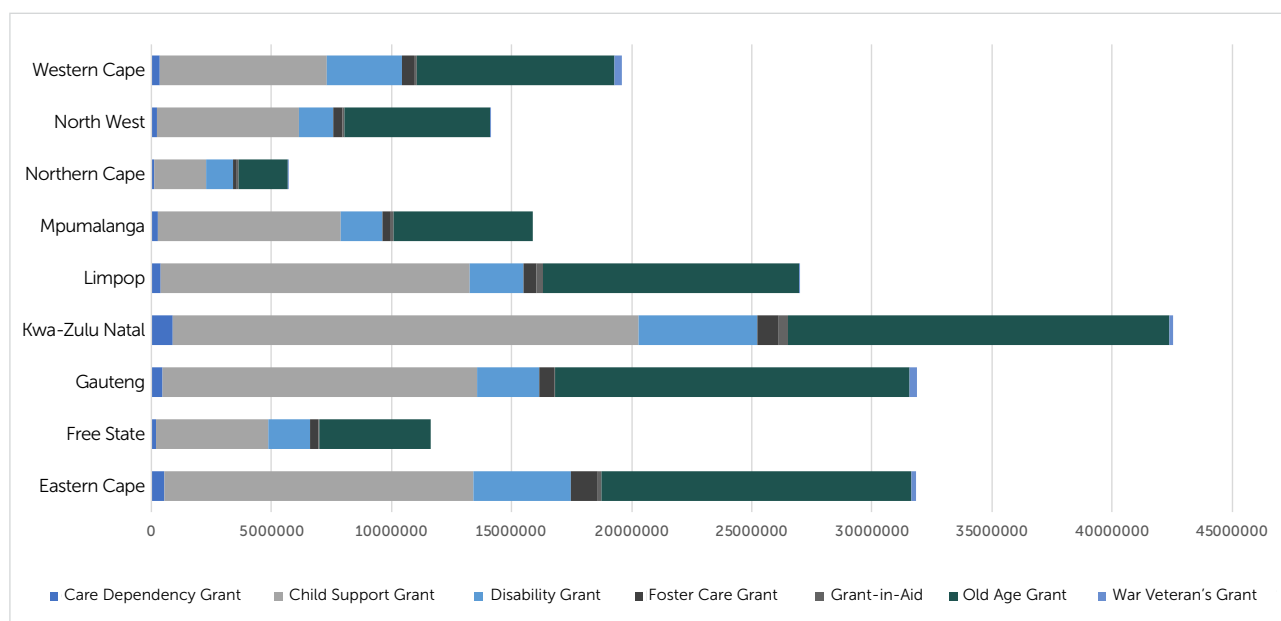
Provinces are not equally distributed in terms of population, which means that provinces with higher population densities, such as KwaZulu-Natal and Gauteng, will receive larger shares of the social grants. Per capita grant receipt considers, on average, the proportion of the population within the province that receives social grants. As social grants in South Africa are targeted, the per capita estimations in Figure 2.13 suggests that 45 per cent of citizens in Limpopo receive a social grant and live below the means-tested value. The Eastern Cape has a similarly high per capita level of grant receipt at 43 per cent, followed by the Northern Cape with an estimation of 39 per cent.

Referring to the poverty headcount levels in Figure 2.12, the Eastern and Northern Cape have varying concentrations of poverty. This unequal distribution of poverty, accompanied by the high levels of per capita grant receipt, suggests that grant recipients within the province live well below the poverty line.

In monetary terms, KwaZulu-Natal receives the largest amount of social grant spending due to 22 per cent of citizens in the province being reliant on social grants. The government spent over R42 billion during the 2020/21 financial year on social grants in KwaZulu-Natal. In comparison to the Northern Cape, that receives the smallest share of grants, the government spent R5 billion in the 2020/21 financial year. Expectedly, the provinces that receive the largest share of the grants are the same provinces that receive the bulk of social grant spending. Namely, the Eastern Cape, Gauteng and KwaZulu-Natal.

Figure 2.14 illustrates the proportion of public funds spent on social grants in each province by grant type. Overwhelmingly, the Older Persons Grant (OPG) receives the majority of spending while the Child Support Grant (CSG) takes a close second. This result is particularly interesting as the OPG is almost two-and-a-half times the CSG. Other social grants within the network are relatively small in comparison to the OPG and CSG. The immense reliance on social grants for citizens below and above the working-age emphasises that working-aged individuals in the households are most likely unemployed, underemployed, and significantly poor. Therefore, there is a need for other household members to use the government's social safety net to meet the household's needs.

Figure 2.14: Social grant expenditure by province and grant type



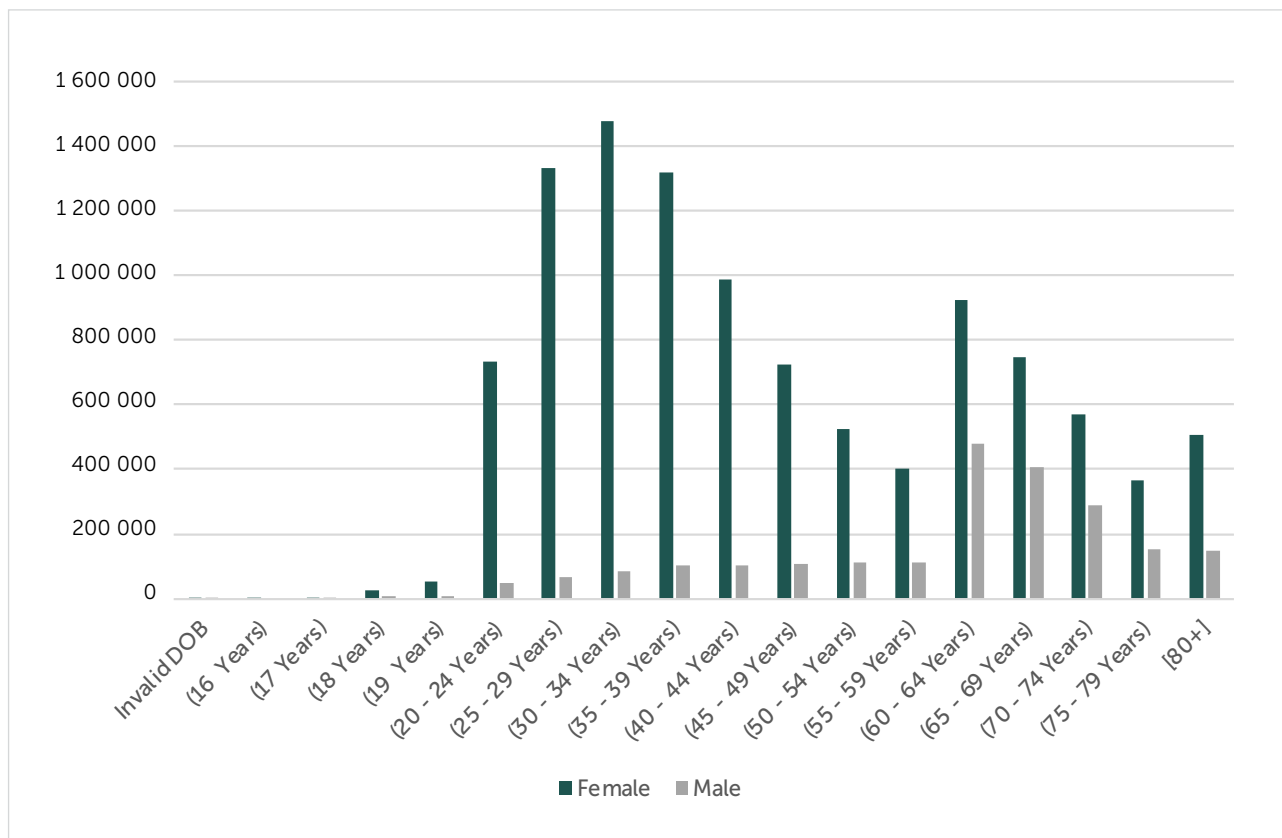
Source: Commission's calculations (National Treasury 2021 & SASSA 2021)

Figure 2.15 illustrates the age and sex distribution of social grant beneficiaries nationally as at the end of December 2022. The total number of grant beneficiaries as at the end of December 2022 was 12.9 million people, of which 10.7 million (or 83 per cent of the total) were female. When focusing on the age distribution, 3.8 million people (or 30 per cent of the total) were between the ages of 16-34 years old. This highlights how dependent South Africa's youth population (as defined in the National Youth Commission Act, 1996) is on social grants.

This reflects the challenges facing the country's working-age youth population face when it comes to gaining employment to reduce their dependence on grants. In addition to this, 4.6 million of the 60 years and older (36 per cent of the total) were dependent on some sort of social grant. This shows the reliance

on the OPG grant by South Africa's elderly population to meet their household needs. In terms of the gender breakdown, Figure 2.15 shows that 3.6 million young females (those aged 16-34 years old) were dependent on some form of social grant, compared to just 213 200 males in the same age bracket. This highlights the fact that young working-age females in households are most likely to be unemployed or underemployed, often due to challenges assessing job opportunities and/or due to having child caring or other household responsibilities. These factors in turn necessitate their reliance on social grants to sustain their livelihoods.

Figure 2.15: Number of social grant beneficiaries by age and gender nationally as at the end of December 2022



Source: SASSA (2023)

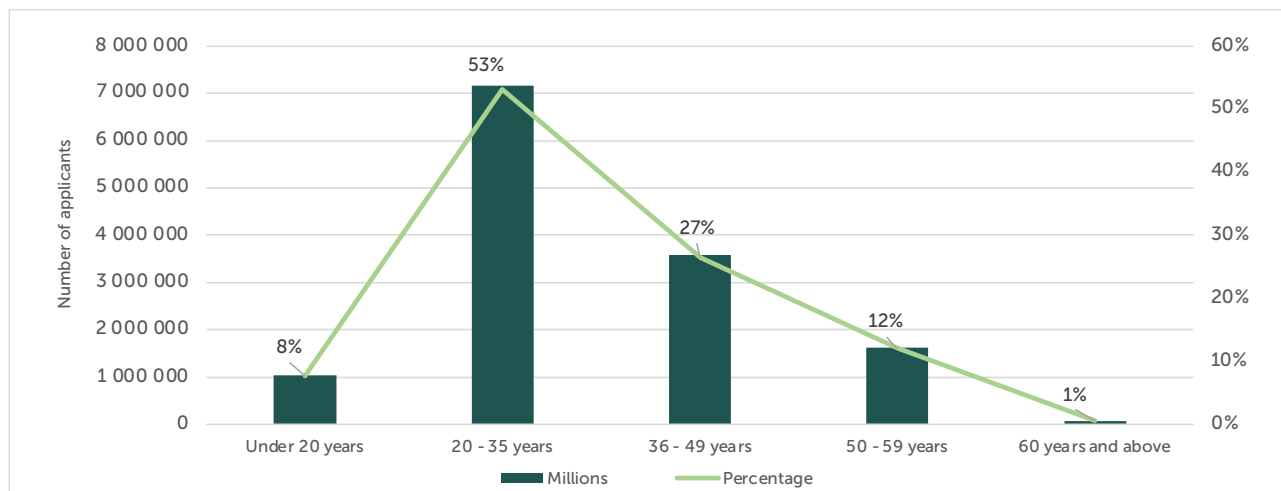
2.3.5.2 The COVID-19 social relief of distress grant and its extension prospects

The social relief of distress (SRD) grant is a means to support citizens and non-citizens by providing financial assistance during unforeseen critical economic downturns. This type of grant is awarded monthly and is subject to conditions. In 2020, a special COVID-19 SRD grant was introduced amounting to R350, and more recently, the payment of the grant has been extended to March of 2024. The SRD grant of R350 will likely become a more permanent form of basic income. In the 2023 state of the nation address, President Cyril Ramaphosa announced the continuation of the SRD grant, and that work was underway to develop a mechanism for targeted basic income support.

The sustainability of the grant, however, is subject to challenges, which are exclusionary in nature. Regulations that determine eligibility are too stringent, inconsistent, and hampered by an excessively low means test. Figure 2.16 shows the need for a grant for those aged 18 to 59. The bulk of applicants that sought the COVID-SRD

grant as of January 2023 are those aged between 20 to 35, making up 53 per cent of total applications, those aged between 36 to 49 years constitute 27 per cent of applicants, and 12 per cent were those between ages 50 to 59. The figure below shows that income support measures are needed to address joblessness and poverty in South Africa's current economy.

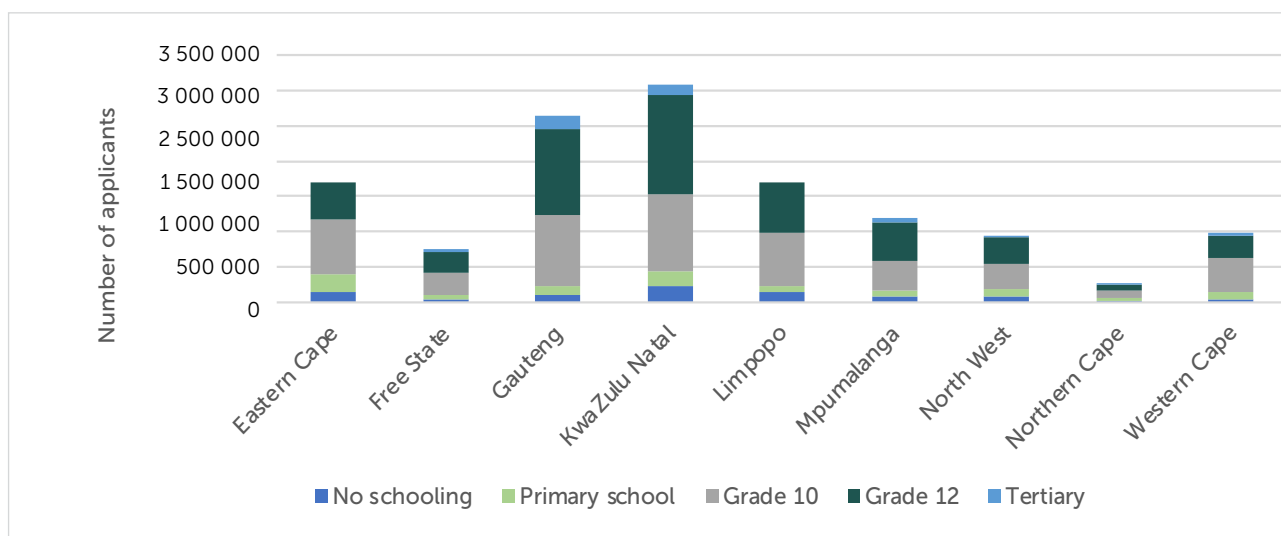
Figure 2.16: Special relief of distress grant applicants by age distribution



Source: Commission's calculations using DSD and SASSA (2023)

In Figure 2.17, the data shows that KwaZulu-Natal is the province with the most SRD grant applicants (3.1 million) in January 2023, followed closely by Gauteng with 2.6 million applicants. Of the 13.5 million applications, those with Grade 10 (39.3 per cent) and Grade 12 (40.6 per cent) form the group with the greatest need for basic income support. The implication of the high applicant numbers from those with some level of schooling points to a lack of employment and a lack of coordination between facilities of education, training and the labour force in South Africa. The issue is further compounded by the drop in applications recorded during the 2022/23 financial year and subsequent savings of R1.8 billion and R3.7 billion reported by the Department of Social Development (DSD) in the adjustments appropriation and second adjustments appropriation bills, respectively. Ultimately, the discrepancy between the cost-of-living crisis and the shrinking of applicant numbers points to an issue of eligibility requirements and other administrative hurdles citizens face.

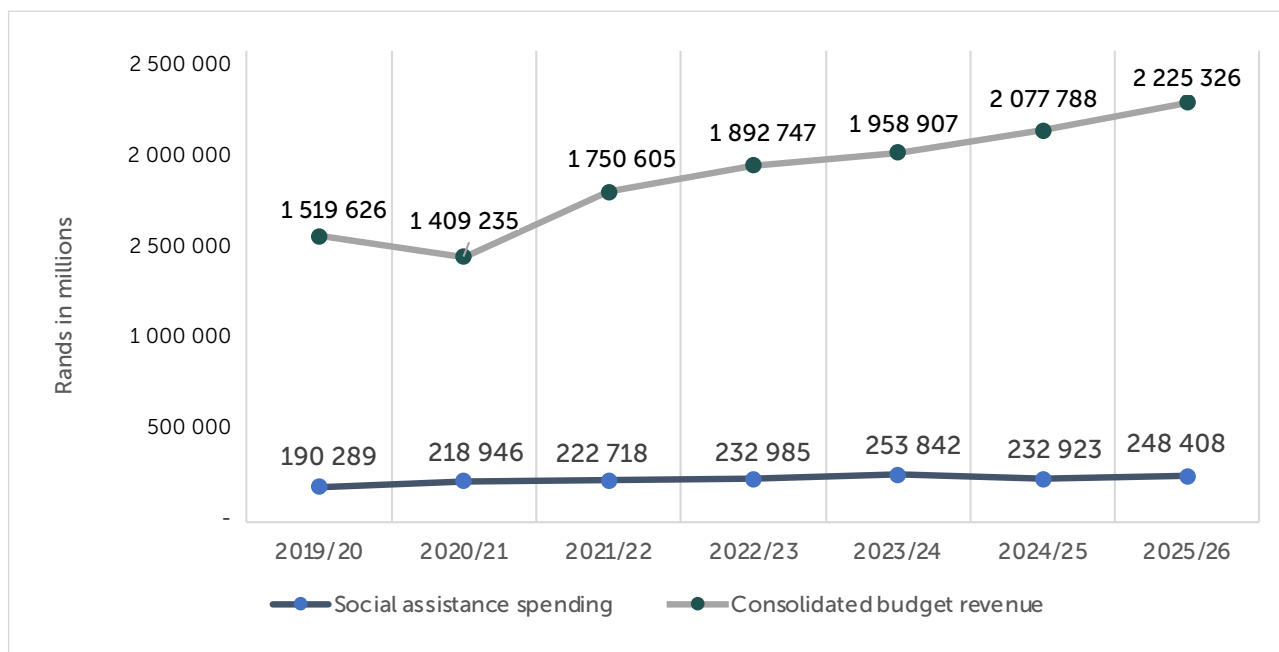
Figure 2.17: Special relief of distress grant applicants by province and education level



Source: Commission's calculations using DSD and SASSA (2023)

2.3.5.3 Fiscal revenue incidence

Figure 2.18: Consolidated revenue and social assistance spending over time



Source: Commission's calculations (National Treasury 2023)

Currently, the trend of consolidated budget revenue is growing at a faster pace than social assistance spending. This can be attributed to the government implementing fiscal austerity on the spending side while aiming for increased revenue collection through the tax system. Based on the present budget, there is limited scope for increasing the social assistance budget to include a BIG in the medium term as expected spending is relatively constant.

The following section explores various cost scenarios associated with the more extensive social coverage required by the implementation of a BIG. The results point to a need for certainty in the policy about the future of the SRD grant. The Commission finds that certainty should be ascertained in determining whether the BIG should anchor the existing social grant network system or whether a BIG's universality implies replacing all grants and the establishment of one social grant. In Table 2.4, the results estimate an amount of R235 billion required to fund the continuation of the social grant network in the 2022/23 financial year. As the estimated total cost increases in the 2023/24 period to R252 billion, a significant reduction of R20 billion is projected in 2024/25 where no provision is made for the COVID-19 SRD grant. Clearly, this is not the intent of the government, but the replacement of the COVID-19 SRD grant will need well-evaluated cost projections underpinned by a robust growth path and debt stabilising strategy. This is no small feat.

Table 2.4: Cost forecast estimates over the medium term

R billion	2022/23	2023/24	2024/25	2025/26
Child support	76.51	81.69	87.04	93.39
Older persons*	92.85	100.27	108.25	116.93
Disability	25.03	26.60	28.25	30.03
Foster care	3.43	3.33	3.24	3.14
Care dependency	3.79	4.10	4.44	4.80
COVID-19 SRD	33.48	35.68	-	-
Total cost	235.09	251.67	231.22	248.28

*: Older person grant includes those aged over 75, and the military veterans grant

Source: Commission's calculations using National Treasury (2023)

Table 2.5 shows the cost scenarios under the assumptions of a standardised SRD grant. The table results further display the cost of a UBIG that encompasses social assistance coverage of unemployed working-age citizens. The SRD grant costs match estimates for a UBIG at the food poverty line (FPL), upper- (UBPL) and lower-bound poverty lines (LBPL). However, these estimates may benefit from more detailed analysis.

At face value, the UBIG would capture a majority of unemployed persons, but fails to accommodate the needs of children, foster care and older persons. The implication is that those not covered by the universality of the proposed BIG would still need a grant of some kind for survival. On the other hand, the SRD grant provides an income floor for those missed by the existing social grant network. Its shortfall is that its cost is associated with ever-increasing social assistance expenditure and an uncertain policy environment. The estimations, like many others, only provide some insight into what is required to fiscally foster a further expansion of the social protection floor. However, until the policy is clear, these figures remain mere predictions. The source and type of funding for a permanent basic income support grant are of utmost significance for impact analysis.

Table 2.5: Cost forecast estimates with an SRD and UBIG based on the LBPL and the UBPL*

R billion		2022/23	2023/24	2024/25	2025/26
SRD	FPL (=R663)	63.42	66.65	-	-
	LBPL (=R945)	90.39	100.68	-	-
	UBPL (=R1417)	135.54	150.97	-	-
UBIG	FPL	63.60	65.73	61.13	65.60
	LBPL	90.65	93.69	87.10	93.43
	UBPL	135.93	140.49	130.66	140.22

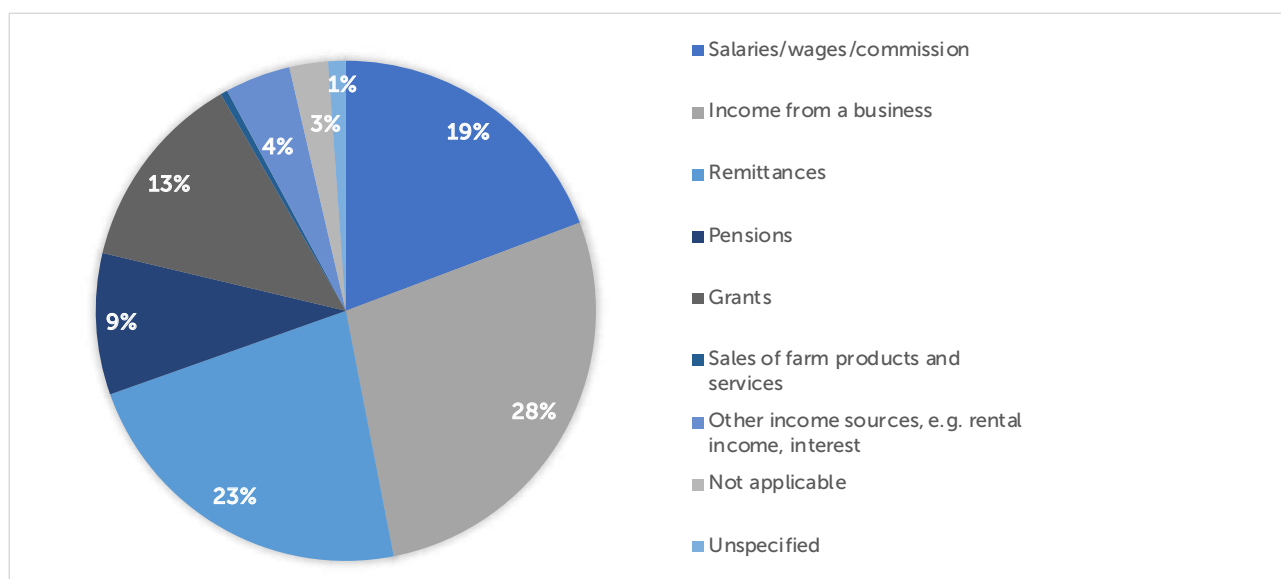
Note: *Poverty lines based on 2022 values.

Source: Commission's calculations using National Treasury (2023), Statistics South Africa (2022)

2.3.5.4 Fiscal incidence of the General Household Survey 2021

According to survey respondents, 28 per cent of households regard their main source of household income to come from a business. Income from remittances (23 per cent) is the second largest category for primary household income, while income from salaries, wages and/or Commission is the third largest contributor to household income. Under the Commission's analysis of extrapolating the General Household Survey (GHS) sample to a national level, 13 per cent of households regard social grants as their main source of income. Other categories that households consider as primary sources of income are depicted in Figure 2.19.

Figure 2.19: Main source of household income¹²



Source: Commission's calculations using the GHS 2021

¹²Reported as the main source of household income by respondents

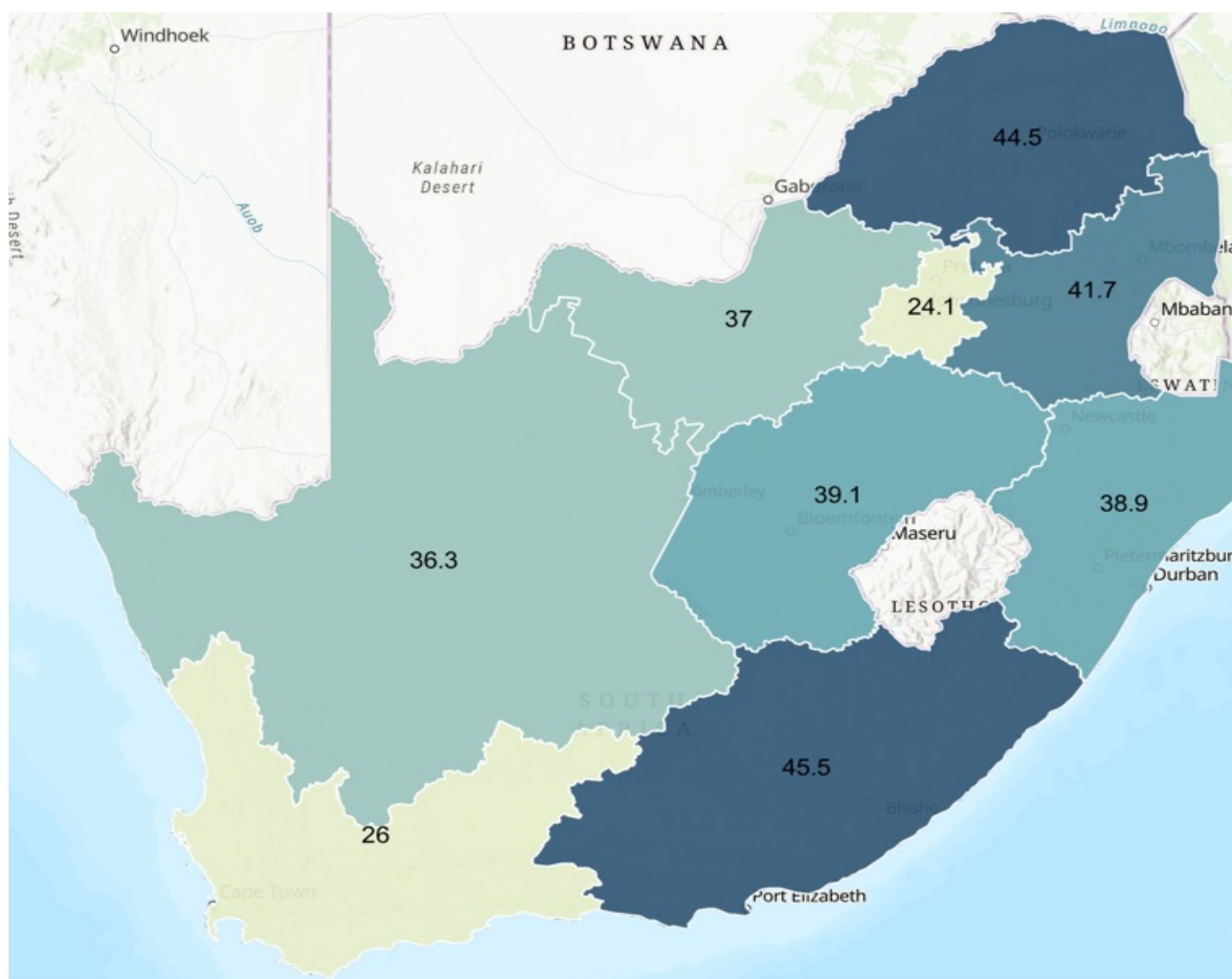
The Commission estimates that the African population receives the largest share of grants by race. The Coloured population follows a close second, thereafter the Indian and White populations. This trend is consistent with existing literature and notes the existing structural racial inequality in the country. Table 2.6 depicts these results and reports large standard deviations. The large standard deviation in the estimation is a slight cause for concern – the correct data from SASSA would have assisted with an accurate analysis.

Table 2.6: Extrapolated estimates of government grant recipients by race

Total	Estimate	Standard Error
African	6 310 000	378 991
Coloured	4 447 506	119 426
Indian/Asian	529 632	84 372
White	581 371	58 569

Source: Commission's calculations using the General Household Survey 2021

Figure 2.20: Percentage of persons receiving social grants per province

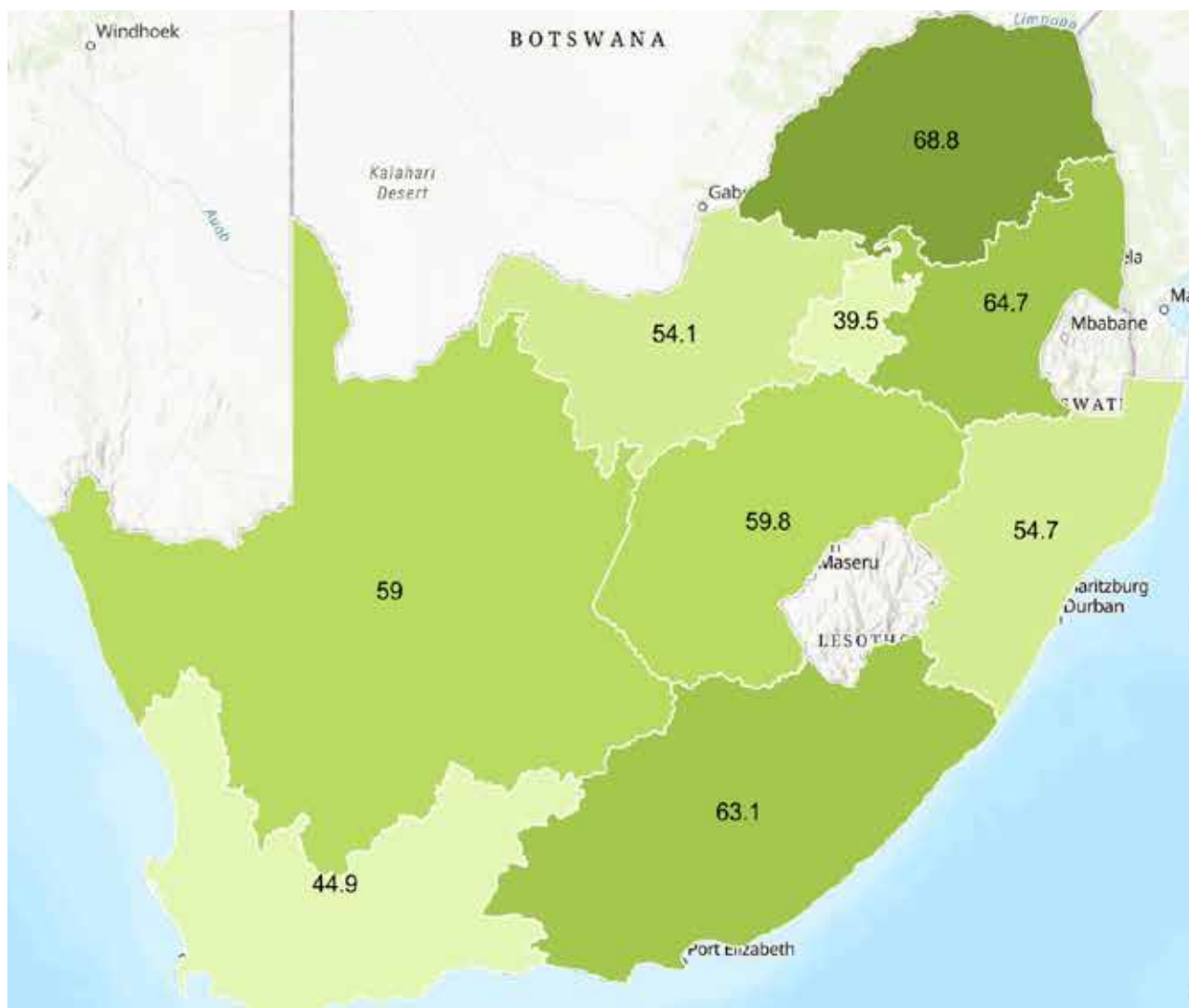


Source: Commission's calculations using the General Household Survey 2020

Social grants have a redistributive power in South Africa. This is noted by the darker blue regions being relatively more rural and less developed than lighter regions such as the Western Cape and Gauteng in Figure 2.20. The Eastern Cape receives the highest percentage of social grants per person, followed by Limpopo, while Gauteng receives the smallest portion of social grants per person.

Figure 2.21 which considers the percentage of households that receive social grants, is consistent with Figure 2.20, which considers the percentage of persons. This again emphasises the distributive nature of social grants in the country. Limpopo has the largest share of households relying on social grants, followed by Mpumalanga and the Eastern Cape. As in the person estimation, households in Gauteng receive the lowest percentage of social grants per household.

Figure 2.21: Percentage of households receiving social grants per province



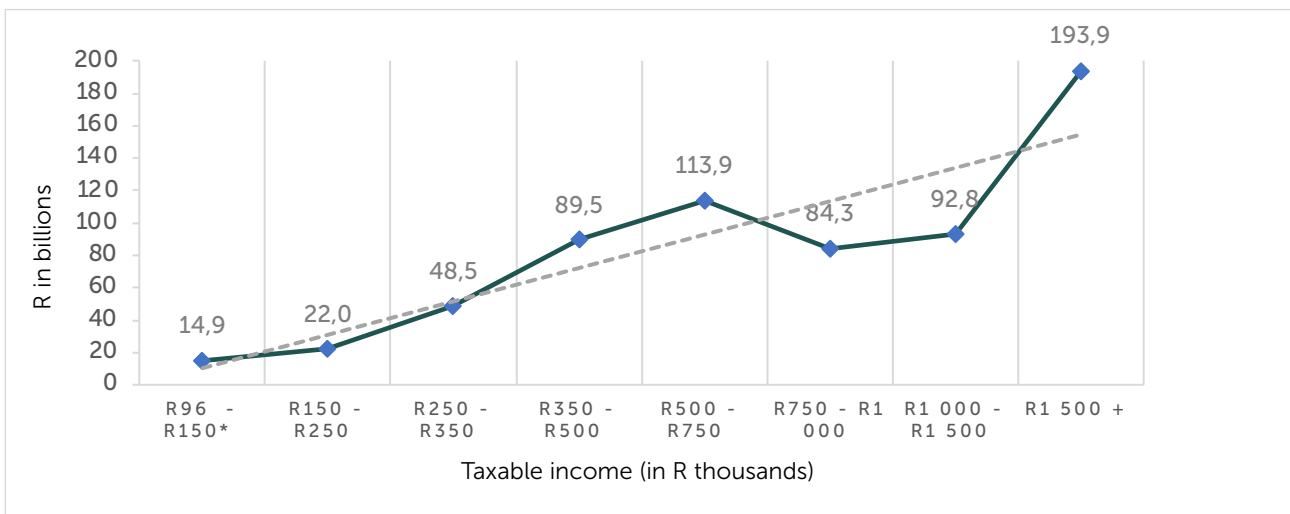
Source: Commission's calculations using the GHS 2020

Figure 2.22 below suggests a bimodality in tax revenue distribution. The results imply a lack of certainty on the state or quality of progressive personal income taxes, and therefore, the results indicate that the tax is more concentrated in some sections than in others. The Commission finds that households falling in the middle - that earn between R500 000 and R750 000 per annum - and those at the top of the distribution - that is, those earning more than R1.5 million per annum - bear most of the burden of personal income tax (accounting for 46.7 per cent of the total personal income tax payable before relief). The figure depicts lower-than-expected tax revenue from R750 000 to R1 000 00 tax bracket group and the R1 000 000 to R1 500 000 tax bracket group. The results should depict a revenue collection trend that is higher than the trendline or at least the same as the trendline (in blue). This suggests two things; firstly is a decline in tax morality associated with the income group in concern. Secondly, people in South Africa may be struggling to get into the upper middle-income class, which in turn results in a large drop in income tax payable at the aforementioned income groups – further as lack of growth in the economy proceeds to businesses. As

evidence of this, the number of estimated registered tax individuals in 2023/24 significantly drops from 842 653 people earning incomes of between R500 000 to R750 000 to 354 263 individuals earning incomes of between R750 000 to R1 000 000 (a decrease of 488 390 people). Another explanation for this could be delving into to what extent these individuals are assessed when it comes to their personal taxes and if indeed all relevant income sources are being declared as part of their tax filings.

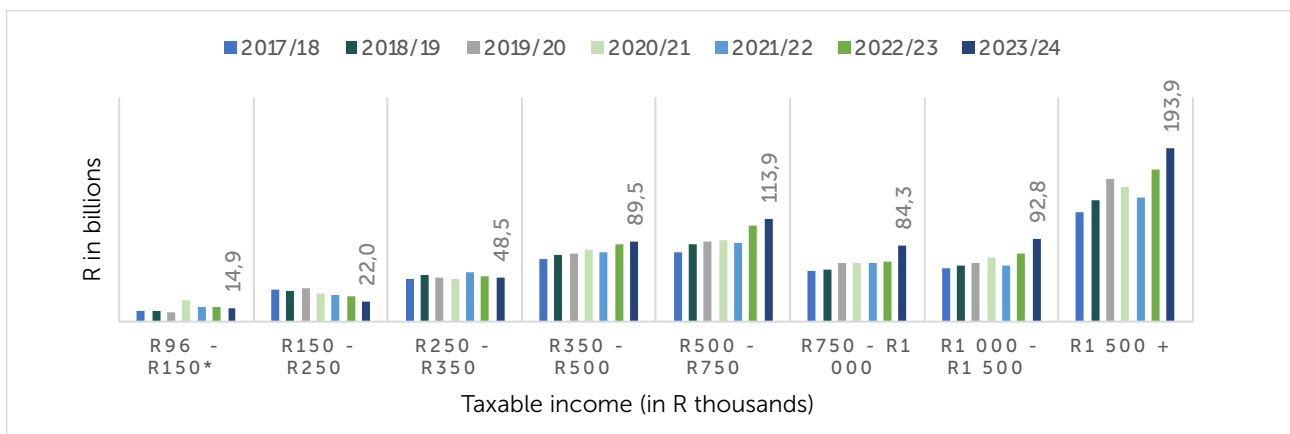
The uneven and non-progressive distribution also means that should personal income taxes be leveraged as a financing option for the inclusion of a BIG, the tax pressure will unfairly prejudice the middle-income group of taxpayers. As seen in figure 2.23, the taxation of the different income groups has historically been uneven and possibly non-progressive. The results suggest that a progressive personal income tax reform should precede any personal income tax increases that may be used to implement the BIG.

Figure 2.22: Progressivity of personal income taxes (2023/24 estimates)



Source: Commission's calculations using National Treasury (2023)

Figure 2.23: Progressivity of personal income taxes over time



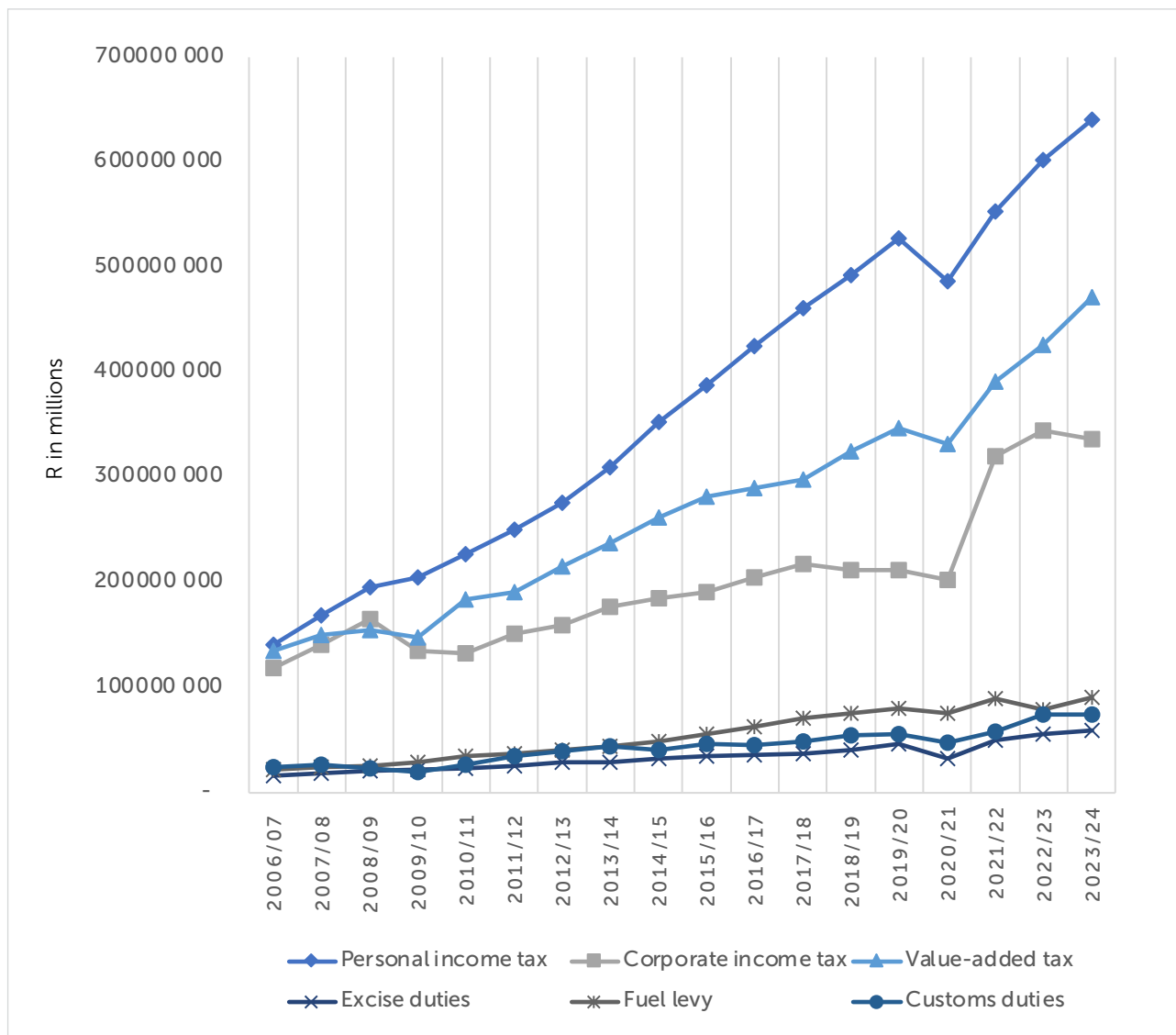
*The lower interval of the income bracket varies over the years

Source: Commission's calculations using National Treasury (2023)

Figure 2.24 depicts the long-run trend of tax revenue collection for personal income tax, corporate income tax, value-added tax, excise duties, fuel levy and customs duties. From the figure, the Commission notes that the size of personal income tax, value-added tax and corporate income tax makes up the biggest share of

total tax revenue. The decrease in collection caused by COVID is depicted in 2020/21 followed by positive gains toward normal growth in 2021/22 for all taxes. Other than corporate income tax, there has been no larger-than-expected growth for taxes that posit potential growth for social assistance spending in the budget. Even more, corporate income tax is starting to show a decline in 2023/24.

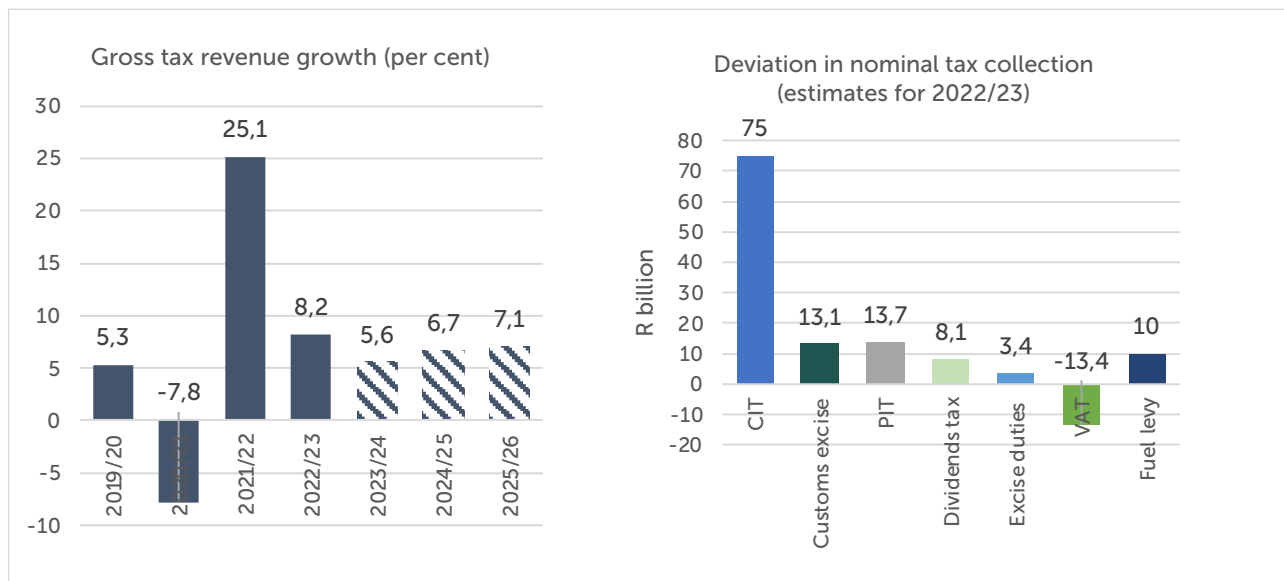
Figure 2.24: The trend of taxes over time



Source: National Treasury (2023)

Figure 2.25 shows that gross tax revenue collection in the 2022/23 tax year shows positive growth of 8.2 per cent, but the growth is vastly lower than the 25.1 per cent revenue growth recorded in 2021/22. The 25.1 per cent growth in 2021/22 is misleading since its magnitude only reflects the recovery of the economy after COVID-19 and not necessarily improved tax revenue collection capacity nor does the expansion imply a higher-than-expected expansion of the economy. The picture over the medium term shows consistent growth, but the anticipated growth is not promising, given the proposed plans to modify the tax system to finance the expansion of social grants as announced at the 2023 State of the Nation Address.

Figure 2.25: Tax revenue collection estimates



Source: National Treasury (2023)

2.4 CONCLUSION

This chapter analysed SOEs' challenges and the reforms required to address these problems, as well as to investigate the fiscal feasibility to introducing a BIG in South Africa. The SOEs are beset with weak fiscal governance, that creates cycles of dependence on the fiscus, necessitating continuous bailouts for the SOEs and guaranteeing debt issuance to cover expenses.

This weak fiscal governance translates into fiscal risk or cash flow risk and risk emanating from the size of the stock of SOE liabilities. The governance problem of SOEs is not confined to corporate governance but translates to a severe fiscal governance problem. This means that more than corporate governance reform is needed to mitigate the challenges of SOEs. It is essential to implement hybrid solutions that combine administrative controls to target incentives for SOEs, their managers, and the organisations that monitor them. Adequate qualitative and empirical evidence supports the creation of centralised agencies to monitor SOEs.

Whereas substantial changes have been made at Eskom and Transnet, particularly concerning leadership at executive and board levels, there are still more reforms required before these two critical SOEs can operate optimally. There is still significantly more that needs to be done to quell these institutions' corruption, mismanagement, and governance failures. This is particularly important given an underperforming economy, policy uncertainty, and fluid national politics.

Several reforms have been aimed at turning around SOEs, including creating a clear framework for restructuring Eskom and its division into autonomous units and gaining greater clarity on some of the critical problems in SOEs emanating from the Zondo Commission. Consequently, some reforms have taken place at Eskom and Transnet, including new management teams. Eskom, however, continues to be affected by long-standing weaknesses, including underinvestment in grid maintenance. There is also a need for more clarity on the precise terms of the restructuring of Eskom.

When it comes to the issue of social assistance in South Africa, there remains an immense reliance on social grants for citizens below and above the working-age emphasises that working-aged individuals in the households are most likely unemployed, underemployed, and significantly poor. A replacement of the COVID-19 SRD grant is needed as a safety net for households to support themselves in the current

economic and unemployment crises. The system of grant dispensation is fraught with challenges. Eligibility requirements and the means of testing are inconsistent. The inconsistency leads to discouragement and varying monthly numbers of successful grant applicants and recipients. Therefore, the true picture of citizens and non-citizens needing financial assistance is distorted. The administration of the social grant network needs to be reviewed.

The Commission finds that the permanence of a BIG is questionable given the current fiscal space and policy uncertainty. Fiscal austerity measures and increased tax revenue collection have boosted consolidated revenue over time. Social assistance spending, however, has been constant over the same period. The Commission finds that the competing spending budget pressures over time have limited the growth of social assistance spending over time and over the medium term. Social assistance is progressive if the wealthier subgroup is taxed at higher rates than the poorer population, and the additional funds raised through taxation are spent on the poor through social grants or other government initiatives. The results of the tax system analysis show that tax may be regressive at the top end of the income distribution at the household level. Furthermore, the personal income tax system has not been progressive nor evenly distributed across tax subgroups over the years.

The Commission cautions against reliance on growth on tax revenue to finance a BIG. The sustainability of an ever-increasing tax revenue trend depends on employment, infrastructure development and growth among other aspects. Thus, if government prioritises social assistance pressures over the sustainability underpinnings, the budget risks overcompensation due to a lack of economic progress. The issue of overcompensation implies that the focus needs to turn to economic growth and development rather than social assistance pressures. Moreover, gross tax revenue growth over the medium term does not show extraordinary growth despite revenue collection ambitions, and anticipated growth calls for conservative expectations in terms of taxes being leveraged as a source of implementing a BIG.

There is a need to build strong capabilities in SOEs premised on technically competent and ethical boards. There must be clarity on the relationship between boards and shareholders. The regulatory structure must be fixed, and the mission of SOEs redefined so there is more clarity on the long-term objectives and the mission of SOEs.

On the topic of BIG, the Commission has noted a need for the government to order a recalculation of the COVID social relief of distress grant amount using a well-informed determination formula. Moreover, there is need for a policy tool that links access to complementary social and economic opportunities with opportunities such as the Expanded Public Works Programme (EPWP).

2.5 RECOMMENDATIONS

There are six areas of recommendations relating to SOEs.

1 Reducing risks from quasi-fiscal activities

In collaboration with the relevant SOE's parent departments, National Treasury should eliminate fiscal risks emanating from the imposition of quasi-fiscal burdens by avoiding policies that result in such obligations or abolishing them if they are already in place. The reduction of discretionary fiscal governance in SOEs requires the following:

- Liberalising the prices of goods and services provided by SOEs in competitive markets and regulating prices in monopolistic or oligopolistic markets at levels that would enable them to generate sufficient profit.
- Subjecting SOEs to the same labour and employment regulations; eradicating any local content obligations for the SOEs and rationalising procurement procedures; and appraising SOEs' investment decisions.
- Improving corporate and fiscal governance through reforms that enable SOEs' management boards

the operational autonomy they require to make profit-maximizing decisions and eliminating political interference to enhance operational transparency.

2 Avoiding Excessive and/or Discretionary Resource Extraction from SOEs

In collaboration with the relevant SOEs' parent departments, National Treasury should reduce excessive resource extraction, which reduces the SOEs' competitiveness, through the following:

- Establish explicit and progressive guidance to SOEs on expected rates of return and the distribution or reinvestment of profits. Instituting a predetermined dividend policy in the form of a fixed percentage of annual profits or linking the pay-out to achieving the desired capital structure for each SOE.

3 Reducing fiscal risks from SOEs' borrowing

SOEs require access to financing to maintain their operations and undertake investments. Fiscal rules that necessitate SOEs to run balanced budgets render them competitive relative to other private sector companies operating in the same sector. SOEs should therefore be allowed to charge higher prices to cover financing costs. However, the National Treasury should establish safeguards to prevent SOEs from becoming too leveraged. National Treasury should not provide preferential access to finance and contractual terms to SOEs. They should instead introduce transparent and non-discretionary controls on borrowing to ensure the SOEs remain liquid and solvent.

The provision of government guarantees by the National Treasury should be subject to assisting SOEs in obtaining financing for projects with significant public benefit. National Treasury should establish an aggregate debt ceiling for each sector to be approved by Parliament. Government guarantees should then only be granted to SOEs subject to an in-depth and explicit appraisal of their ability to service the debt. The SOEs should be charged fees comparable to those imposed on any guarantees granted to private sector companies, as is the case, for instance, in Australia.

Borrowing controls should be premised on clear, predetermined, and impartial benchmarks that evaluate the SOEs' capacity to service their debts. This should entail the size and structure of the SOEs' liabilities, their interest burden, debt repayment schedules, operational profitability, the size of their contingent and known future liabilities, the liquidity of their assets, and the volatility of their revenues. The evaluation must also forecast how the new capital structure will impact these indicators. At a minimum, the indicators used by National Treasury for evaluating the SOEs must incorporate the ratio of gross liabilities to revenue, debt denominated in foreign currency to foreign exchange reserves, interest payable to revenue, and liquid assets to short-term liabilities. The indicators should be standardised and weighted for making approval decisions.

4 Monitoring, reporting, accounting, and control

In collaboration with the relevant SOEs' parent departments, National Treasury should obligate SOEs to implement effectual systems to monitor the execution of their budgets and provide detailed reports in this regard. National Treasury should acquire human and technical resources required to monitor the SOEs, safeguard their adherence to financial and reporting obligations, scrutinise budgets and reports, and provide appropriate feedback on necessary remedial action where necessary.

National Treasury must make it mandatory for SOEs to submit a consolidated set of statements that will enable statistical analysis. A separate statement must be prepared on targets for the government and SOEs and evaluated using different criteria. Government spending on SOEs should be assessed on whether it achieved aims such as macroeconomic growth and fiscal stability, and the SOEs' budgetary allocations must be evaluated on their profitability, efficiency, and liquidity. National Treasury should strengthen their SOEs' asset and liability management capabilities. This should ensure that SOEs boards have the necessary skill set to prioritise this.

5 Improving the transparency of SOEs' operations

The public disclosure and appropriate distribution of detailed information on SOEs' operational and financial performance are critical for good governance. Moreover, examination by external stakeholders significantly increases the SOEs' accountability and discourages political complicity or flagrant corruption. National Treasury should institute reforms aimed at improving transparency, focusing on the following:

- More declaration of the SOEs' contingent and future liabilities and the results of sensitivity and risk analyses.
- Safeguarding that the SOEs' quarterly and annual reports include sections analysing their performance during the corresponding period.

6 Establishment of a centralised holding company

There is theoretical and empirical evidence that a centralised holding company, that monitors or controls SOEs, improves its performance and reduces fiscal risk. Holdings with corporate structures may not automatically produce better results than a well-staffed centralised unit within National Treasury. However, a centralised holding company is critical to reducing monitoring costs. National Treasury should establish a centralised holding company that will operate with tight ex-ante controls regarding debt and capital expenditure plans to minimise the fiscal risk inherent in the operation of SOEs.

The following are recommendations on the Basic Income Grant.

7 Recalculate the COVID relief of distress grant

The Minister of Social Development and the Minister of Finance should reconsider recalculating the COVID social relief of distress grant amount with a well-informed determination formula. The Commission notes the static and arbitrary amount value of R350 attached to the social relief of distress grant. The Commission encourages a recalculation of the amount that takes into consideration the cost-of-living crisis and unemployment. Moreover, a permanent basic income support structure is needed when considerations are made about the value of the income support.

8 Account for recorded public underspending

The Minister of Social Development and the South African Social Security Agency should account to the public for underspending recorded in the adjustment's appropriation bill and the second adjustments appropriation bill amounting to R1.8 billion and R3.7 billion, respectively. The results suggest that a growing number of South Africans are jobless and need income support. However, the reduced intake for the social relief of distress grant points to the misadministration of the budget allocated to the Department of Social Development. The grant is not merely an exercise of convenience but an essential lifeline. The Commission notes that difficulties are associated with eligibility requirements but urges a level of reliability in the administration of grants. The underutilised allocation could have also serviced other spending pressures in the budget.

9 Develop a correspondence policy tool

The Minister of Social Development should develop a policy tool that interlinks with access to complementary social and economic opportunities with opportunities such as the Expanded Public Works Programme. The Commission envisages policy tools that can link social grant recipients to employment, training and education opportunities. The tools would enable coordination between state initiatives aimed at improving the behaviour and economic status of beneficiaries. The Minister should use the grant beneficiary demographic data at its disposal to track the success of the social grant network system. Data inefficiencies in the current administration make the proper monitoring and evaluation of the grant system burdensome and difficult. The Commission urges proper record-keeping and information dispensation at the Department of Social Development, as accurate reports are the only way to dismantle obstacles in the system and identify threats.

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PART 2

SUB-NATIONAL FOCUS: OPTIMISING INTERGOVERNMENTAL FISCAL INSTRUMENTS

CHAPTER 3:

A Review of Learner Teacher Support Materials and Learner Transport in South Africa

3.1 INTRODUCTION

Educational outputs or performance is contingent on a myriad of inputs. Some of these are school-related, but many of them are outside the domain of the education sector. Factors related to a learner's socio economic status such as parents' educational attainment or private household resources are non-school related. Factors within the direct control of the government and specifically the education sector, include planning and provisioning of human resources such as teachers, physical facilities such as classrooms, material inputs such as learner teacher support materials (LTSM) and services such as learner transport.

From a cost-benefit perspective, and relative to other educational inputs, improving the provisioning and management of LTSM and learner transport, can be regarded as relatively low-hanging fruits in that they present relatively less complex and politically charged avenues for improving educational performance, especially when compared to the dynamics involved in either education infrastructure or issues around teacher quality and performance. LTSM and learner transport are the focus areas of this chapter.

3.2 PROBLEM STATEMENT

In South Africa, the right to education is entrenched in chapter two of the Constitution (Republic of South Africa, 1996) enshrined in the Bill of Rights. Furthermore, all the rights specified in chapter two of the constitution are justiciable, implying that if anyone feels that their access to these rights are being threatened or infringed, they may approach a court of law to seek relief.

Both LTSM and learner transport have been the subject of court cases. With respect to LTSM, the first such case arose in 2012 because of failure of government to deliver textbooks to schools in Limpopo (*Basic Education for All vs Minister of Basic Education*). The second in 2014, relates to the government's failure to provide age-appropriate desks and chairs in the Eastern Cape (*Madzodzo vs Minister of Basic Education*).

More recently, at the beginning of 2022, a legal challenge was lodged in the Eastern Cape where textbook and stationary deliveries were delayed for approximately 3 000 schools (Ellis, 2022). In keeping with the precedents set in the two earlier cases, the judgement passed down in March 2022 again confirmed that government has a legal obligation to ensure that all learners have access to all required LTSM, including textbooks and stationery at the start of the academic year and that failure to do so is in contravention of the right to a basic education.

Regarding learner transport, the 2015 case of the *Tripartite Steering Committee vs Minister of Basic Education*, is instructive in that the court found that transport for learners who live far from a school, or who cannot afford the cost of transport, must be provided at the state's expense. Thus, both LTSM and learner transport can be considered essential elements that form part and parcel of fulfilling the right to a basic education in South Africa.

Recurring litigation opens government and the responsible departments up to additional costs and questions around the extent to which the right to education, as enshrined in the Constitution is being

upheld. More importantly, without readers, textbooks and other LTSMs, it will be harder for South Africa to improve early grade reading and writing and thus educational outcomes.

The impact of poor access to or lack of LTSMs and particularly textbooks is not limited to the basic education sector but can have a knock-on effect across the human capital pipeline. For example, as learners transition from the basic education sector to the post school education and training sector (PSET), the result is the PSET sector inherits students that may not have mastered the ability to read for meaning, thus continuing to impact outcomes at the higher education level.

The lack of access to LTSM, can end up having much broader impacts that can affect the skills available in our economy. Similarly, access to learner transport is crucial in ensuring that learners are physically able to get to school and to arrive safely and on time, thus ensuring that learners are present and have an opportunity to realise their academic goals.

Unfortunately, while LTSM and learner transport are central to the right to education, the provision of funding towards these aspects has proved challenging. Of the R298 billion allocated to basic education in 2022/23, 75 per cent is allocated to compensation of employees. While national government has made additional provision (amounting to R24.6 billion) to cover provincial personnel funding shortfalls, the consequence of ever-expanding compensation costs is dire for spending on non-personnel educational inputs (National Treasury, 2022).

Given the relative rigidity of provincial revenue bases, provinces are left with the task of having to reorient spending towards the most pressing needs. For schools that are unable to supplement government funding with revenue from school fees, this means less funding for essential and complementary educational inputs such as LTSM and learner transport. Unfortunately, the provision of both LTSM and learner transport has proven challenging in South Africa.

3.3 RESEARCH AIMS AND OBJECTIVES

3.3.1 The aim

The overarching aim of this chapter is to review the provision of LTSM and learner transport in South Africa with a view to making recommendations on how policy, funding and ultimately access to these essential educational inputs can be improved.

Objectives

The objectives underpinning the research are divided according to the two focus areas, namely LTSM and learner transport.

With respect to LTSM, the objectives are to:

- Assess the policy and funding regime underpinning the provision of LTSM in South Africa.
- Conduct an institutional analysis of the factors that hamper the delivery of LTSM across the nine provincial education departments (PEDs).
- Make recommendations on how the management and provision of LTSM can be improved.

The objectives related to learner transport are to:

- Understand the demand and supply of learner transport and the implications of changing learner numbers in provinces, particularly in provinces where schools have been significantly rationalised and reduced as well as those where the number of schools have significantly increased..
- Evaluate funding challenges faced by provinces with respect to learner transport.
- Assess if provinces adhere to norms and standards and regulations for learner transport.

3.4 RESEARCH METHODOLOGY AND DATA

To fulfil the research objectives outlined above, a combination of methods and data will be relied upon. In respect to LTSM, a combination of policy, budget and institutional analysis will be used as follows:

- Analysis of national legislation and regulations underpinning the procurement and provision of LTSM will be undertaken to understand the environment within which the provisioning of this essential educational input takes place. Emphasis will be placed on whether a formal LTSM-related policy and regulations exist and the extent to which they recognise the varying contexts confronting the nine PEDs. This is critical as policy decisions affect the cost of implementation and in the context of a resource-constrained environment, poor acknowledgement of provincial context can affect the costs associated with delivery and ultimately the extent to which policy goals are achieved.
- In terms of budget analysis, secondary data will be relied on to analyse spending on LTSM. Spending data from 2010 until 2020 will be sourced from the Estimates of Provincial Revenue and Expenditure documents which are available for each of the nine PEDs on the National Treasury website. The data will be analysed to establish trends in the funding of LTSM. Available financial data on LTSM will also be assessed to determine how far South Africa is in terms of meeting international LTSM spending benchmarks.
- Institutional analysis entails understanding how institutions (in this case government departments) behave and function, particularly the manner in which administrative and political factors affect the implementation of public programmes. In the context of this study, the aim is to understand whether the provision of LTSM is informed by province-specific policies that set out the priority and provincial goals around LTSM, how the budgeting for LTSMs takes place and what the dynamics and implications around selected procurement and delivery approaches are. In this regard, annual reports and annual performance plans of PEDs will be analysed. In addition, meetings with officials at the national Department of Basic Education (DBE) and PEDs will be used to gain further understanding of the practical operating environment within which PEDs deliver LTSM. These interactions will also provide the opportunity to delve deeper into conclusions drawn from the policy and budget analysis.

In conducting the analysis on learner transport, a combination of the following methods will be used:

- Demand analysis of learner transport per province from 2010, depending on the availability of data. Data used includes secondary sources from the national and provincial departments of Basic Education and Transport. This includes annual reports, annual performance plans, and presentations.
- A comprehensive review of how different provinces fund learner transport, including learner transport expenditure trends for various provinces will be undertaken. The relevant data sources include secondary data from provincial treasuries (including Estimates of Provincial Revenue and Expenditure), departments of basic education, and provincial departments of transport.
- Finally, case studies of four provinces will be undertaken. Three, mostly rural, provinces that have experienced the highest number of rationalised schools, have been selected. In this regard, the Eastern Cape, Kwa-Zulu-Natal, and Limpopo have been selected. In contrast a province – Gauteng – with the highest growth in the number of schools and learners, has also been selected. The case studies will include interviews with relevant officials from provincial departments of Basic Education and Transport (and national departments where necessary), wherein issues pertaining to institutional arrangements, challenges encountered and adherence to national and provincial norms and standards, will be investigated.

3.5 ANALYSIS

This section discusses the main findings emanating from the analysis. It is divided into two components. The first component (section 3.5.1) will detail the findings related to LTSM, while the second component (section 3.5.2) will home in on learner transport.

3.5.1 LTSM

LTSMs refer to various resources that promote learning and improve academic achievement. It comprises, but is not limited to, textbooks, workbooks, worksheets, and supplementary resource materials used in classroom settings at educational institutions to assist learners in better comprehending the content covered in their curriculum. LTSMs can also include electronic materials, such as e-textbooks, tablets, computers, and supplementary electronic materials – these are also commonly referred to as eLTSMs.

The section on LTSM has two components – the first provides a summary of the assessment of secondary data to understand the legislative/regulatory framework and budget analysis underpinning the public provision of LTSM in South Africa. The second part of this section describes the issues that arose from the interviews that were conducted.

3.5.1.1 Findings from secondary data analysis

(a) Legislative and policy context underpinning LTSM

The key pieces of legislation that underlie the provision of LTSM are the Constitution, the South African Schools Act, the National Norms and Standards for School Funding and the Draft National Policy for the Provision and Management of LTSM. These are outlined below.

South African Constitution, 1996

The right to basic education is enshrined in the Bill of Rights. Section 29 (1)(a) of the Constitution stipulates that everyone has the right to a basic education, including adult basic education. In accordance with international conventions that South Africa is party to, for example, the International Covenant on Economic, Social and Cultural Rights (ICESCR), as well as legal precedents set domestically (see for example *Basic Education for All vs Minister of Basic Education*, *Madzodzo vs Minister of Basic Education and Khula Community Development Project vs Head of Department of Eastern Cape Department of Basic Education and others*), LTSM is considered an essential component of a learner's constitutional right to basic education. It is important to recognise that the right to basic education is unique in the sense that its fulfilment is not subject to the limitations of progressive realisation and availability of resources – thus the right to basic education and all that it entails, is immediately realisable.

South African Schools Act (SASA), 1996

The overarching aim of the SASA is to provide for a uniform system for the organisation, governance and funding of schools and matters connected therewith. Of relevance to the issue of LTSM is that Section 21 of the SASA makes provision for a governing body to apply to the Provincial Head of Department (HoD) to be allocated various functions, including in Section 21 (1)(c), the purchase of LTSM, or as listed in the clause: textbooks, educational materials or equipment for the school. Section 21(2) further notes that the HoD may only refuse a request if the governing body lacks the capacity to perform the function applied for. Section 22(1) allows for a HoD to withdraw any functions allocated to a governing body, if reasonable grounds exist, therefore. Where a governing body is not allocated the right to purchase LTSM on behalf of a school, the province must procure LTSM for that school.

National Norms and Standards for School Funding (NNSFF), 1996 and as amended in 1998

The NNSFF gives effect to the SASA and provides guidance to the nine PEDs to determine allocations to

schools within their jurisdictions. The norms and standards relate specifically to school level expenditure and only to public ordinary schools. The national DBE cannot prescribe the level of funding that should be annually allocated to PEDs – this is the responsibility of provincial governments and legislatures. The national sphere is however empowered to set minimum norms and standards with the assumption that PEDs will align their spending accordingly.

Thus, the NNSSF was developed as a means to improve funding redress and equity by provinces adhering to the norms and standards and allocating greater funding to poorer learners. The NNSSF takes a quintile-based approach to funding whereby quintiles 1, 2 and 3 include the neediest schools and quintiles 4 and 5 relate to the most affluent schools. In terms of the NNSSF, learners in quintile 1, 2 and 3 schools are not required to pay school fees. As part of trying to direct greater funding to needier learners, each year the DBE sets the target per learner amount for each quintile. PEDs are then required to fund learners in accordance with these nationally set amounts. Table 3.1 indicates the annually gazetted NNSSF per learner amounts for 2021, 2022 and 2023. As is clear, learners in quintiles 1, 2 and 3 are allocated larger per learner amounts relative to those learners in quintile 4 and 5 schools.

Table 3.1: Annually gazetted per learner amounts, 2021-2023

	2021	2022	2023
National quintile 1, 2 and 3	R1 466	R1 536	R1 610
National quintile 4	R 735	R 770	R 807
National quintile 5	R 254	R 266	R 279
No-fee threshold	R1 466	R1 536	R1 610

The per learner amounts must be used to cover purchases related to various items – these are described in Table 3.2 below. PEDs determine how to divide the per learner amounts shown in Table 3.1 across the different spending areas identified in Table 3.1. For example in the Western Cape, in 2019/20, schools were advised to spend 30 per cent of the per learner amounts on LTSM, whereas the PED recommended that KZN schools allocate 40 per cent of their per learner allocations on LTSM in 2022.

Section 96 of the NNSSF outlines what items must be purchased from the annually gazetted per learner amounts – see Table 3.1. As is evident from Table 3.2, the per learner amounts are to be used to fund a wide variety of items including LTSM. Notable among this list is the inclusion of utility payments such as water and electricity – given the increase in water and electricity tariffs, PEDs could face a situation where spending on such items crowds out spending on core educational inputs such as textbooks.

Table 3.2: Outline of items that must be funded via the annually gazetted per learner amount

Category of spend	Example
Learner support material	Textbooks, library books, charts, models, computer hardware and software, televisions, video recorders, home economics equipment, science laboratory equipment, musical instruments, learner desks, chairs
Non-learner support material equipment	Furniture (excl. learner desks and chairs), paper copier machines, telephone sets, fax machines, intercom systems, equipment for connectivity within the school and to the internet, hardware tools, cleaning equipment, first aid kits, overalls for cleaners and ground staff, sporting equipment, electrical accessories,
Consumable items of an educational nature	Stationery for learners
Consumable items of a non-educational nature	Stationery for office use, paper, cleaning materials, petrol, food
Services relating to repairs and maintenance	Building repair work, equipment repairs and maintenance, light bulbs
Other services	TV licences, internet service providers, school membership of educational associations, postage, telephone calls, electricity, water, rates and taxes, rental of equipment, audit fees, bank charges, legal services, advertising, security services, public or scholar transport, vehicle hire, insurance, copying service

Source: Republic of South Africa, 2006, p. 27

Draft National Policy for the Provision and Management of Learning and Teaching Support Material, 2014

At present, there is no approved national policy governing the provision and management of LTSM in South Africa. What exists is a draft policy titled “Draft National Policy for the Provision and Management of Learning and Teaching Support Material”. The draft policy was published for comment in 2014 and is intended to govern provinces, districts and schools. The national DBE has noted that the policy process was interrupted by the need to conduct a socio economic impact study (SEIS). The draft policy covers six elements, namely: development and production of LTSM, development of the national catalogue of core LTSM, procurement of LTSM, LTSM retention, utilisation of LTSM and monitoring and evaluation of the management and provision of LTSM.

In terms of access to LTSM, the aim of the draft policy is to address the past inequalities to access LTSM. It proposes that “every learner and teacher have access to the minimum set of core material required to implement the National Curriculum Statement Grades R-12”. Core material is defined as LTSM that is central to teaching the entire curriculum of a subject for a grade – the draft policy notes that this generally includes a textbook/learner book, workbook and teacher guide.

One gap in the draft policy is that it does not substantively cover the aspect of eLTSM. The policy indicates that eLTSM shall be provided as an alternative or an addition to printed textbooks. In contrast to this, the National Development Plan (NDP) highlights the significance of eLTSMs. In terms of envisaged goals, the NDP emphasises the progression towards e-education and envisages that high speed broadband should be readily available and incorporated into the design of schools to enable greater use of technology in education and to improve ways of learning. Furthermore, it emphasises that mobile devices such as phones and tablets should be explored as a means of distributing learning content and teachers must be exposed to necessary technical training to improve their skills and use of technology.

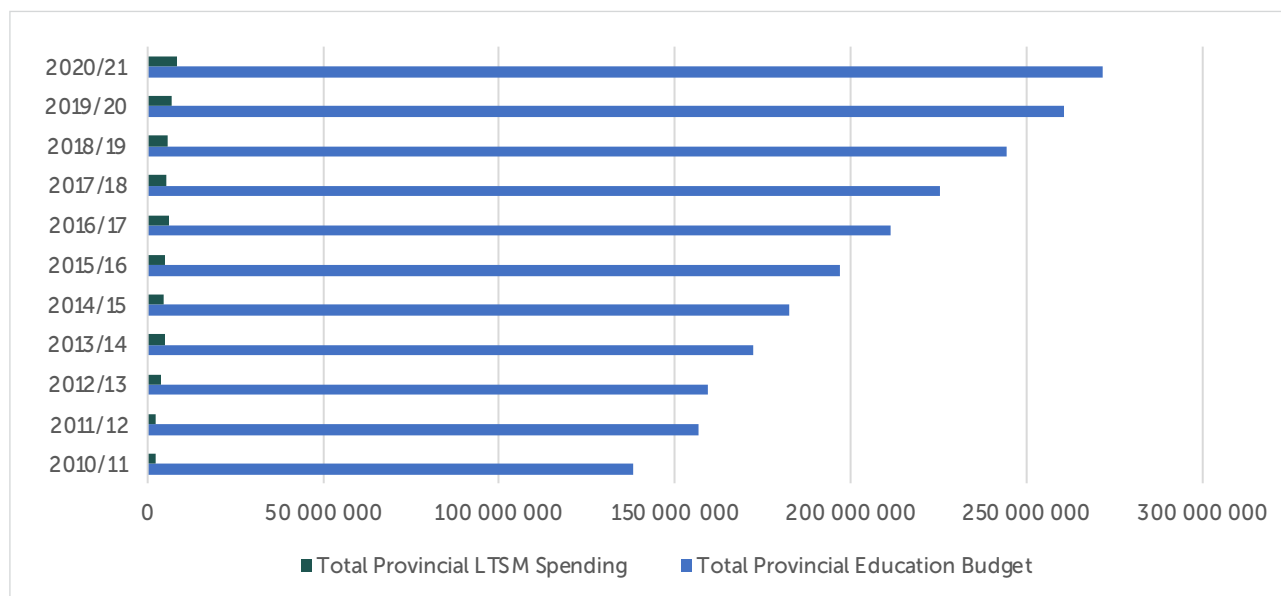
The draft LTSM policy is silent on the aforementioned aspects, and as such raises concern around alignment between the national policy on LTSM and the aspirations outlined in the NDP. Moreover, the exploration of mobile devices and sufficient technical training for teachers is not alluded to in the policy. However, it is imperative that these aspects be added and alluded to in the policy as they form an integral part of the digital transformation in education and should be viewed as part of the broader equity considerations within the sector.

Moreover, the finalisation of the policy is a necessary step in concluding the policy process with respect to LTSM. A policy precedes the enactment of legislation, which allocates mandate, roles and responsibilities and which is a necessary step to enable the establishment of funding and other regulations.

(b) Spending on LTSM

Ultimately, the funding, procurement and delivery of LTSMs are the responsibility of provinces and the schools within their domain. Spending on LTSM is funded by provinces from their equitable share allocation and within the parameters of the NNSSF and the annually gazetted per learner amounts. Figure 3.1 illustrates the spending on LTSM relative to total provincial education spending. Whereas in 2010/11 spending on LTSM was R2.5 billion (or 1.8 per cent of the total provincial education spending), this has increased to R8.6 billion as at 2020/21 (3.2 per cent of total provincial education spending).

Figure 3.1: Provincial LTSM spending in relation to total provincial education spending, 2010/11 to 2020/21 (R'000)

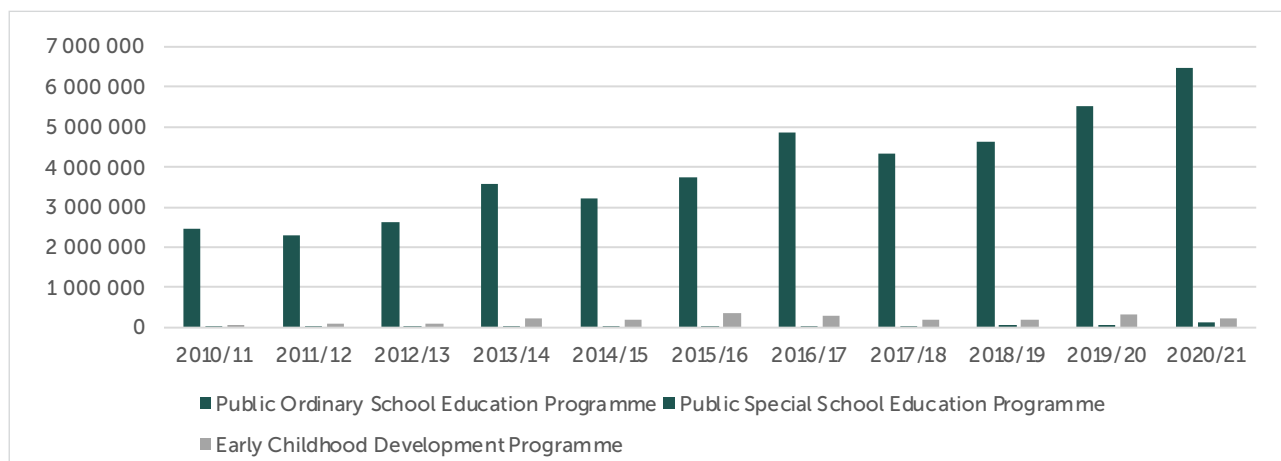


Source: Commission calculations based on: (National Treasury, 2013, 2016, 2019, 2022)

The bulk of LTSM spending occurs in the Public Ordinary School Education programme which is responsible for, on average, 80 per cent of LTSM spending over the period 2010/11 to 2020/21. Figure 3.2 illustrates total LTSM spending by the three key provincial education budget programmes namely, the Public Ordinary School Education, Public Special School Education and Early Childhood Development (ECD) programmes. In contrast to the LTSM spending for Public Ordinary Schools, such spending within the ECD and Public Special Schools programmes is minimal, averaging 3.8 per cent and 0.6 per cent respectively over the period 2010/11 to 2020/21.

The proportion of the programme budget allocated to LTSM has remained relatively stable over the last five years. Concern regarding the small LTSM allocations to special schools and ECD is emphasised. Special needs schools contain among the most vulnerable of learners with the LTSM needs of these learners being particularly sophisticated and expensive. Likewise, ECD spending on LTSM is of concern given the importance of the foundation phase and the role that it can play in strengthening educational outcomes throughout the rest of a learner’s schooling career.

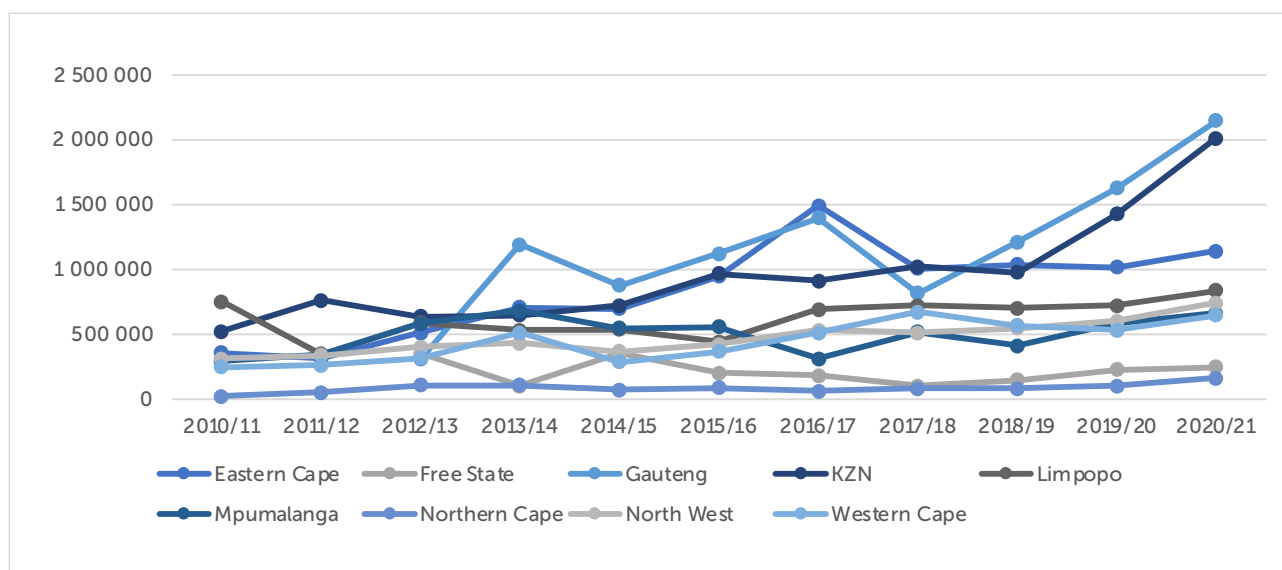
Figure 3.2: Total LTSM spending per provincial education budget programme, 2010/11 to 2020/21 (R'000)



Source: Commission calculations based on: (National Treasury, 2013, 2016, 2019, 2022)

Disaggregating spending on LTSM by province shows the variances in spending (see Figure 3.3). As at 2020/21, the three highest spenders on LTSM are Gauteng (R2.1 billion), KwaZulu-Natal (R2 billion) and the Eastern Cape (R1.1 billion). At the lower end of the scale are the Northern Cape (R161 million) and Free State (R249 million).

Figure 3.3: Total LTSM spending per province, 2010/11 to 2020/21 (R'000)



Source: Commission calculations based on: (National Treasury, 2013, 2016, 2019, 2022)

Table 3.3 shows the provincial LTSM spending as a proportion of the total provincial education budget. While Gauteng and KwaZulu-Natal spend the largest absolute amounts on LTSM, North West province spends the largest share of its provincial education budget on LTSM (4.2 per cent of the provincial education budget spent on LTSM in 2020/21) and has been spending relatively high amounts throughout the period shown.

Table 3.3: LTSM spending as a proportion of total provincial education budget, 2010/11 to 2020/21

%	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
EC	1.6%	1.2%	2.0%	2.6%	2.6%	3.3%	4.8%	3.1%	2.9%	2.7%	3.1%
FS			3.5%	1.0%	3.1%	1.8%	1.5%	0.8%	1.1%	1.5%	1.6%
GP			1.2%	4.1%	2.8%	3.1%	3.5%	2.0%	2.5%	3.1%	3.7%
KZN	1.8%	2.2%	1.8%	1.7%	1.8%	2.3%	2.0%	2.1%	1.9%	2.6%	3.5%
LP	3.7%	1.6%	2.8%	2.3%	2.2%	1.8%	2.6%	2.5%	2.3%	2.3%	2.5%
MP	2.5%	2.6%	4.2%	4.6%	3.5%	3.3%	1.8%	2.7%	2.0%	2.6%	3.0%
NC	0.6%	1.3%	2.7%	2.4%	1.5%	1.7%	1.1%	1.4%	1.3%	1.5%	2.2%
NW	3.4%	3.3%	3.9%	3.7%	3.0%	3.2%	3.8%	3.4%	3.5%	3.6%	4.2%
WC	2.1%	2.0%	2.3%	3.4%	1.7%	2.1%	2.7%	3.3%	2.5%	2.2%	2.6%
Total	2.3%	2.0%	2.4%	2.9%	2.4%	2.6%	2.9%	2.4%	2.3%	2.6%	3.2%

Source: Commission calculations based on: (National Treasury, 2013, 2016, 2019, 2022)

Table 3.4 illustrates the per learner spending on LTSM by province over the period 2010/11 to 2020/21. North West province has spent above the national average spend per learner on LTSM over the entire period reviewed. Over the last three years, Gauteng has also managed to spend above the national average spend amount. The Eastern Cape exhibited a similar pattern since 2014/15 but as at 2020/21, LTSM per learner dropped slightly below the national average.

Table 3.4: LTSM spending per learner, 2010/11-2020/21 (Rands)

Province	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
EC	175	158	263	366	358	484	761	561	563	553	620
FS	0	0	529	153	525	294	265	144	208	318	346
GP	0	0	149	560	400	496	601	338	505	664	856
KZN	187	267	221	225	248	336	317	357	347	502	702
LP	442	206	342	309	311	251	391	407	408	412	475
MPU	280	326	552	646	517	515	290	471	395	534	598
NC	81	191	395	384	250	305	204	287	279	340	529
NW	413	439	517	549	456	521	639	622	651	708	861
WC	246	259	307	486	266	335	460	596	498	448	521
National Average	205	196	306	393	352	399	471	423	444	525	651

Source: Commission calculations based on: (Department of Basic Education, 2010, 2011, 2012, 2013,2014, 2015,2016,2017,2018,2019 2020,2021).

3.5.1.2 Key issues emerging from interviews

(a) LTSM policy in draft form since 2014

The LTSM policy has stalled, having been in draft form for the past eight years. Stakeholders agreed that finalising the policy process is important as it serves to assign greater priority to LTSM and is an important first step to establishing LTSM related regulations. The Commission welcomes the draft policy’s intention to achieve enhanced LTSM delivery systems. An issue that requires greater elaboration and emphasis within the policy is the aspect of eLTSMs, a reflection on the barriers that hamper fuller use of this type of LTSMs and how these challenges can be overcome especially in the case of lesser resourced, quintile 1 to 3 schools. Addressing access to these evolving types of LTSM is important as it relates to the broader access and equity issues that hamper progress in the sector.

(b) Funding not linked to demand and cost of LTSM at different grades and limited funding for learners with special educational needs

As indicated earlier in this chapter, funding for LTSM at the school level is via the annually gazetted per learner amounts, which are applicable to all public ordinary schools. The amounts are the same per learner in the same quintile irrespective of whether a learner is in primary or high school.

The concern is that as learners progress to higher grades, there are an increased number of textbooks and the length of textbooks increase, which implies higher costs. The funding does not consider this differentiated need of learners as they progress to higher grades. This non-differentiated approach is not aligned with best practice as recommended by the World Bank whereby governments ought to spend a minimum of 3-5 per cent of the primary education budget and a slightly higher, 4-6 per cent of the secondary education budget, on textbooks.

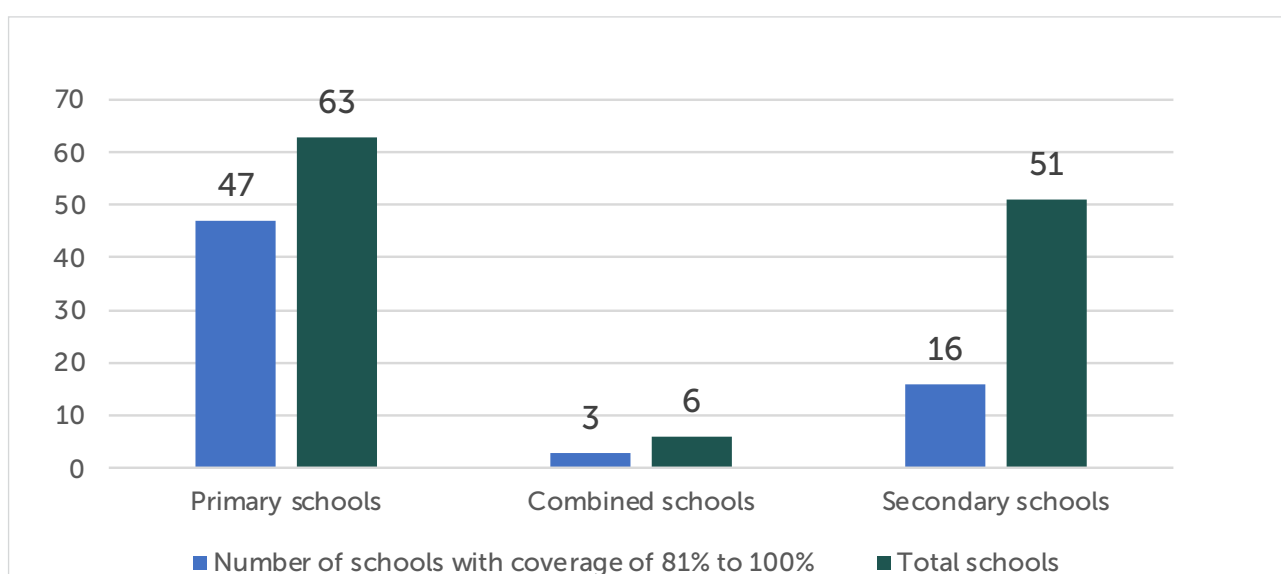
Some provinces noted that this increase in costs associated with LTSMs in higher grades can, at times, result in inability to ensure that all learners have textbooks and other LTSMs. Examples from two provinces as highlighted in Table 3.5 and Figure 3.4, illustrate that the provision of textbooks tend to be less effective at higher grades (that is, coverage rates tend to be lower, the higher the grade). Provinces noted that in early grades, as learners receive textbooks each year, they come to rely on them for structure. This is then reversed, and learners are left floundering when they enter secondary school, and they don’t receive their own textbooks.

Table 3.5: Textbook coverage rate in the Northern Cape as at August 2022

Grade	Number of Learners	per cent of Textbook Coverage
4	99 221	83per cent
5	93 769	82per cent
6	92 667	83per cent
7	142 168	72per cent
8	174 366	63per cent
9	153 846	65per cent
10	217 648	71per cent
11	245 823	81per cent
12	176 163	79per cent
National Average	205	196

Source: (Northern Cape Provincial Education Department , 2022)

Figure 3.4: Textbook coverage rates for a sample of KZN schools



Source: (Devendranath, 2019)

A second issue related to funding is the limited focus on special needs education (SNE) learners. Figure 3.2 highlights the relatively low priority attached to LTSM spending in public special schools when compared to public ordinary schools and to a lesser extent, ECD. Over the period 2010/11 to 2020/21, the nine PEDs allocated an average of 0.6 per cent to LTSM in public special schools.

Given the cost associated with specialised LTSM requirements (such as converting text to braille) and assistive technology (such as for example, audiobooks, electronic worksheets) that can be used by learners with special educational needs, the level of LTSM funding allocated to this category of schools are disproportionate. The low level of priority attached to LTSM in special schools is indicative of a broader challenge around the lack of a comprehensive funding framework for special schools which has been raised by the the Commission in previous annual submissions – see for example chapter 5 of the Annual Submission for the 2021/22 Division of Revenue.

Given the above, there would be merit in setting norms for funding per learner, per phase (foundation intermediate, senior and FET) of education with specific attention on special needs education.

(c) LTSM and improving early grade reading and reading for meaning

While the national DBE (and various PEDs) have spearheaded various interventions (including the 2008 National Reading Strategy) to improve early grade reading and reading for meaning, impact has been limited with these aspects remaining challenges that require significant and urgent turnaround. Recent, 2023 statistics, indicating that 82 per cent of Grade 4 learners cannot read for meaning, attests to this.

From an infrastructure point of view, data from the National Education Infrastructure Management System indicates that as at 2021, 30.41 per cent of schools had a library. Of that 30.41 per cent, only 17.39 per cent had a stocked library that contained books. This means that 69.59 per cent or over 17 000 schools have no library facilities. While this represents an improvement relative to 2020 where 74.16 per cent of schools did not have library facilities, the amount of schools without these facilities is high and this aspect should be urgently addressed, not only because it is part of the minimum norms and standards for school infrastructure, but because these facilities can play an important role in embedding a culture of reading and access to reading materials at school. While international and regional case studies on best practice provide guidance on how to improve educational performance, successful local initiatives also exist – the Vula Bula Anthologies and the Funda Wande interventions 'are cases in point.

In 2018, the Eastern Cape PED developed a reading strategy for 2019-2023. This was in response to the expanding amount of domestic and global research that affirms the idea that children should go to school and learn to read and write for meaning. Included in this strategy was the distribution of graded readers and other learner and teacher support materials (LTSM). Due to the expensive cost of supplying an acceptable quantity of graded readers in skinny-book format, the Department explored open-access readers.

The Department collaborated with non-government organisations who were transforming Vula Bula's open-access graded readers into an anthology format. Since the readers were open education resources, printing the anthologies was significantly less expensive. As a result, in 2019 and 2020, the anthologies were provided to all Grade 1-3 learners at roughly R15 for each reader; included in this was the distribution of 825 000 readers to 463 276 children across 4 298 schools.

The anthologies included 44 phonically arranged leveled stories for grades 1 and 2 and 22 grade-level stories for grade 3. A key requirement that accompanied the provision of these readers to schools was that learners had to take the readers home. The readers also contained a note to parents and caregivers requesting them to encourage learners to read the stories aloud at home.

According to an interaction with one of the key implementers of this initiative, the emphasis on allowing learners to take readers home departs from the normal practice of schools wanting to protect and hold on to textbooks and readers and thus very rarely, or if ever, allowing these forms of LTSM to leave the school. In addition to the roll-out of this initiative being cost-effective evidence also suggests that the readers were used extensively in and outside the classroom setting with the result that learners' word-reading fluency in their native tongue have improved. Eastern Cape learners who had full access to these readers could read three more isiXhosa words fluently per minute in Grade 3 compared to those without access. Unfortunately, despite the programme's efficacy and impact on learners' reading performance in 2019 and 2020, the books were not printed or delivered in the subsequent years due to budgetary constraints in 2020.

Similarly, the 2023 Reading Panel Background Report provides key insights into local initiatives that have proven to positively influence reading for meaning. One such example is the Funda Wande Limpopo Teacher Assistant intervention that coupled the provision of additional materials with the placement of a trained teaching assistant per teacher. With this approach, reading outcomes improved dramatically (by 129 per cent) (Spaull, 2023).

Looking at approaches used internationally to improve reading for meaning, a small percentage of European countries have included reading specialists on their teaching staff to improve children's capacity to read for

meaning (European Commission, 2011). On the other hand, Australia has implemented a guided reading programme, emphasising the explicit and methodical instruction of comprehension (Taylor, 2018). Moreover, Australia has also made a digital reading service available that provides virtual tutoring on independent reading techniques and skill monitoring so that learners can make the most of their independent reading time at home and in school (Taylor, 2018).

In the United States, the department of education (USDOE) has implemented vocabulary-teaching game-based programmes delivered on a portable platform (Nintendo DS). The programme intends to assist struggling fourth-grade learners in mastering vocabulary and word-learning strategies. Key to note in this regard is that the actual presentation of content affects how learners process it. Therefore, it is pertinent that where possible, teachers and schools take full advantage of the improved effectiveness of textual content in the digital landscape in the form of e-learning platforms (Keir, Wilson, & Elizondo, 2009). Numerous schools also make use of research-based core reading programmes and augment their basic curricula with intervention materials for all learners who struggle with reading. Moreover, many schools use various tactics to build a text's meaning, including phonics, context clues, and visuals. It is important to note that these tactics are implemented from the foundation phase and are a constant part of reading instruction throughout all grades. These schools have given the improvement of reading for meaning abilities top priority and developed preschool reading readiness programmes that include print concepts, sound-symbol relationships, language acquisition, and listening comprehension. As learners progress to higher grades, they continue with these skills and add reading fluency and comprehension (United States Department of Education, 2014). The suitability of these initiatives for implementation in the South African context should be explored.

(d) Value for money initiatives must be compatible with full access to LTSMs

Textbook retrieval is critical to building up a healthy stock of textbooks, but efforts should not constrain full learner access to these resources. Healthy textbook retrieval rates mean that schools can reuse and focus on topping up existing textbook stock as opposed to purchasing new stock. Healthy textbook retrieval has a direct bearing on LTSM spending in the sense that it can assist in minimising the need for additional purchases. PEDs generally lament low retrieval rates and emphasise the need for a shift in the thinking not only of learners, but also parents around the importance of caring for, and returning, textbooks so that they can be used by learners in subsequent years. To this end, a number of PEDs have embarked on roadshows across their respective areas to highlight the importance of this aspect. It must be cautioned that in the pursuit of better retrieval rates, allowing learners actual access to textbooks and readers and permitting learners to take these resources home, must not be sacrificed.

(e) Strengthening monitoring and oversight

Where functions are shared amongst national and provincial spheres of government, the national sphere is generally more focussed on monitoring and overseeing service delivery as implemented by provinces. This is the case when it comes to LTSM as well. At present, the national DBE does not have an electronic monitoring system so as to track performance of PEDs when it comes to LTSMs. Likewise at the provincial level, it is important for PEDs to be aware of how schools within their jurisdiction are performing in relation to the delivery of basic education. At present, a few provinces, notably the Free State, North West and Northern Cape provinces have their own internal electronic systems.

The Free State has noted various advantages of being able to effectively monitor and track requisitioning, receipt and retrieval of LTSMs by schools and in some instances being able to avoid unnecessary spending on top-ups of textbooks. Given the high costs associated with procuring information technology (IT) systems, the basic education sector needs to consider how to leverage existing systems and processes to assist with monitoring and oversight nationally and provincially. In this regard, the South African School Administration and Management System (SA-SAMS) provides an opportunity. The SA-SAMS has been developed and implemented by the national DBE, the State Information Technology Agency (SITA) and PEDs.

(f) A note on the challenges hampering the full utilisation of eLTSMs

Officials in different provinces indicated that the utilisation of electronic materials for learning and teaching is a feasible concept that could contribute significantly to improving learning outcomes. However, the issue of sustainability was of great concern, as officials questioned the long-term plan with respect to eLTSM. Moreover, challenges of safety and retrieval and maintenance, were at the forefront of the challenges noted by PEDs.

Infrastructure challenges in schools were also noted as a hindrance to being able to use eLTSMs. For example, some schools across the country still experience shortages in relation to the minimum norms and standards around school infrastructure, namely the requisite computer labs, science labs and electricity. On the other hand, provinces indicated that the monitoring of eLTSM, more specifically tablets, are relatively easier, as service providers can track down these devices during theft or non-retrieval. Finally, it was indicated that moving towards electronic materials for learning and teaching would require capacitating current teachers with requisite level of skills as new methods of pedagogy could emerge.

3.5.2 Learner transport

3.5.2.1 Location of learner transport programme in provinces and delivery chain

The National Learner Transport Policy of 2015 is not specific regarding the location of the learner transport function, with five of the nine provinces locating the function with the Provincial Department of Education and the remaining four with the Department of Transport (DoT). Interviews with different key stakeholders revealed that the location of the function does not appear to affect delivery. However, for administrative purposes and uniformity, it would be better if the function could be under the same department across provinces.

Based on the different locations of the learner transport function, the two processes of delivering the function are as follows:

Figure 3.5: Role of different provincial departments on learner transport



Source: Compiled by the Commission based on information provided by officials from the National Departments of Basic Education and Transport

3.5.2.2 Changes in the demand and targeting for learner transport

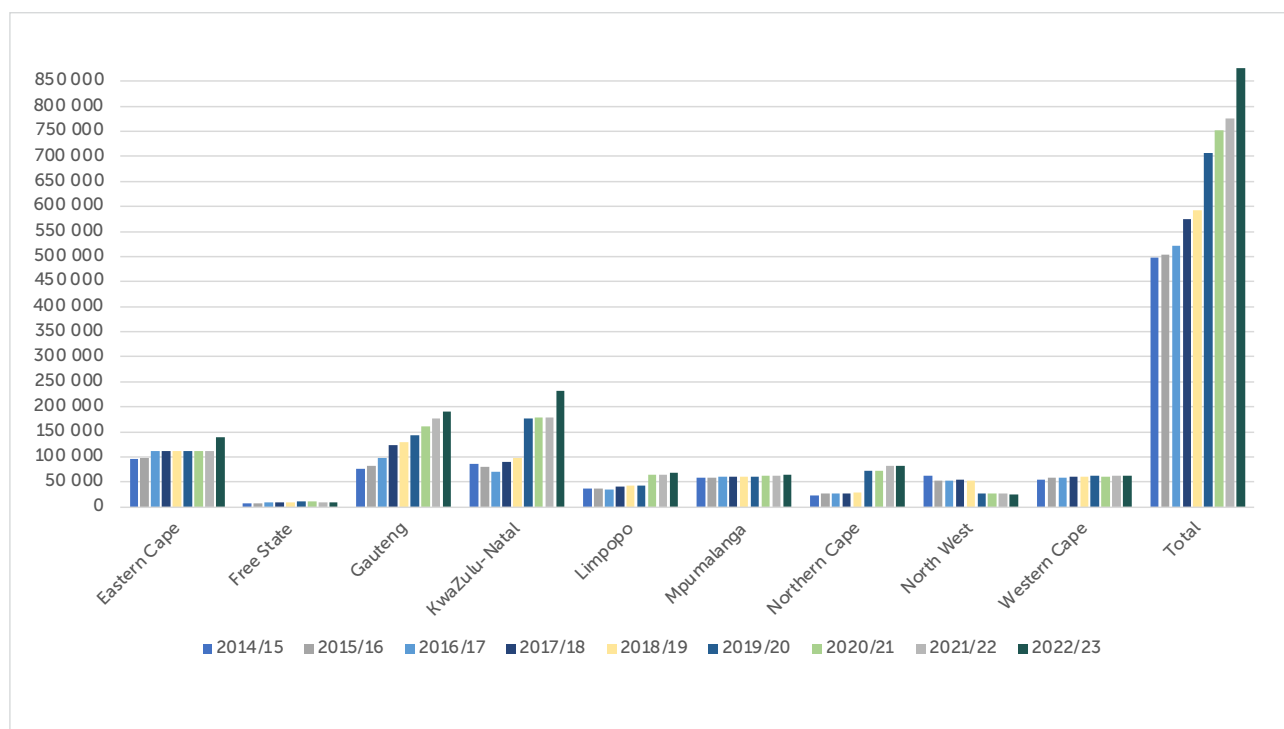
(a) Demand for learner transport in South Africa

Demand for learner transport is influenced by several factors, including growth in learner numbers, learners migrating within and between provinces, school's rationalisation, as well as school infrastructure plans not keeping pace with the proliferation of informal settlements and the expansion of residential areas.

There have been challenges with respect to the sourcing of updated data in various provinces with related to the demand for learner transport. The reported demand for learner transport data from 2014/15 to 2022/23 indicates that the total number of learners requiring learner transport nationwide stood at 498 263 in 2014/15, which increased to 875 985 in 2022/23.

Provinces with the highest demand were the Eastern Cape, KwaZulu-Natal, and Gauteng (combined share of over 51 per cent and 64 per cent of the total demand in 2014/15 and 2022/23 respectively). Concerning the growth trend of learner transport, Figure 3.6 illustrates that the Northern Cape (although off a low base), KwaZulu-Natal and Eastern Cape and Gauteng provinces have the highest increase in demand. For instance, the demand increased at an average annual rate of 16.87 per cent for the Northern Cape from 23 573 learners to 82 050 learners between 2014/15 and 2022/23. This rate of increase outstripped the annual average of 7.31 per cent for South Africa over the same time period. Similarly, higher growth rates were recorded for KwaZulu-Natal and Gauteng that grew at an average annual rate of 13.32 per cent and 12.34 per cent respectively over the same period.

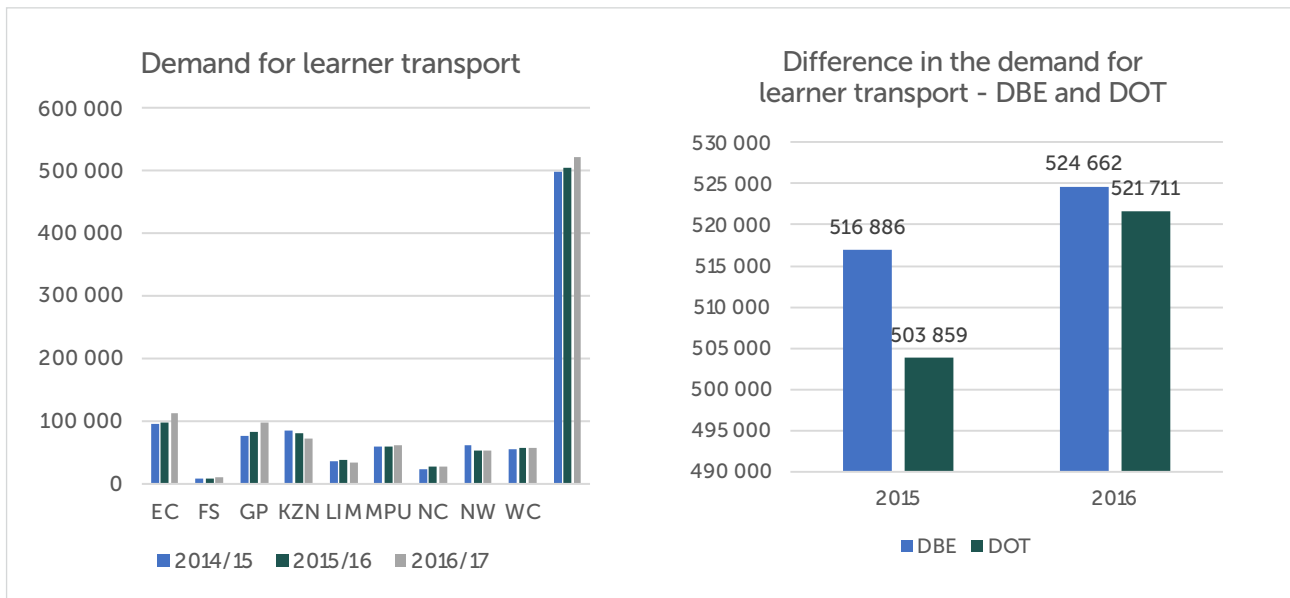
Figure 3.6: Demand for learner transport 2014-2022



Source: (Department of planning, monitoring and evaluation, Department of Basic Education and Department of Transport, 2019)

The study reveals inaccuracy with respect to the demand for learner transport. For instance, the DoT reported a total demand of 503 859 and 521 711 learners in 2015/16 and 2016/17, respectively, while the DBE reported demand of 516 886 and 524 662 over the same period as illustrated in Figure 3.7. It is key to note that accuracy with respect to the actual learner transport demand is essential for the planning and funding/budgeting for learner transport.

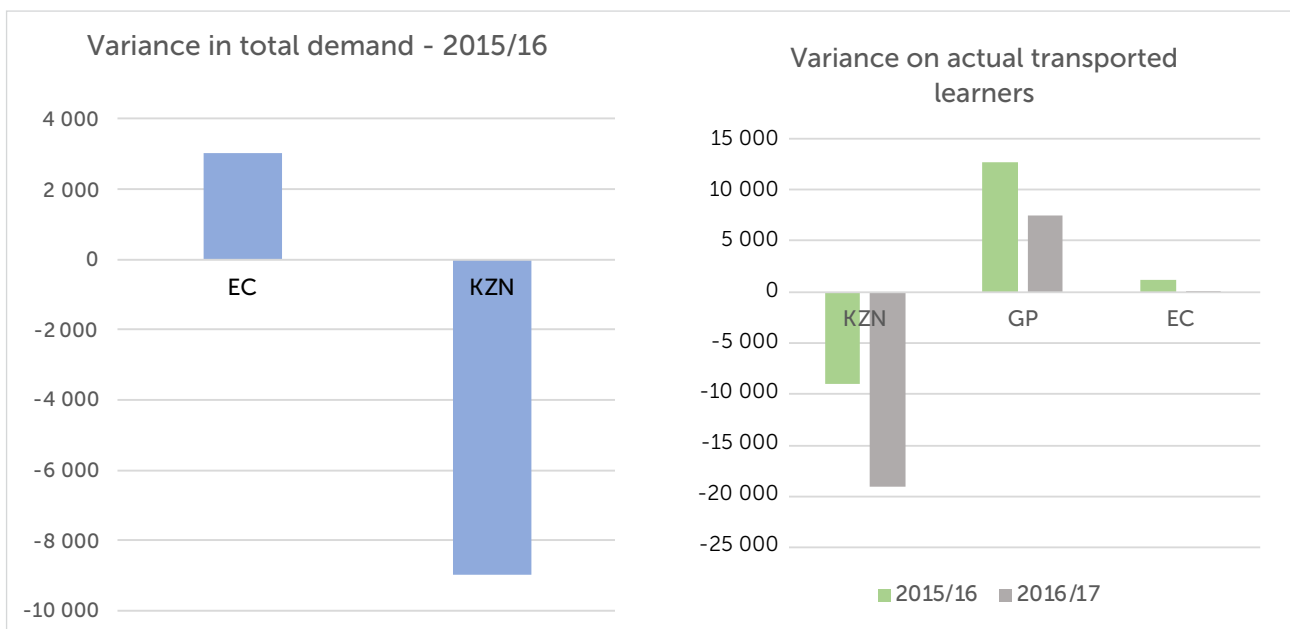
Figure 3.7: Differences in the demand for learner transport



Source: (Department of Transport, 2018), (Department of Basic Education, 2015, 2016)

A comprehensive study undertaken in 2018 by the Department of Monitoring and Evaluation, the DBE and Department of Transport also confirmed data inaccuracy supplied by the provincial departments and reported by the DBE and DoT. The variance between data from provinces and from the DBE and DoT is illustrated in Figure 3.8.

Figure 3.8: Variance in total demand and transported learners

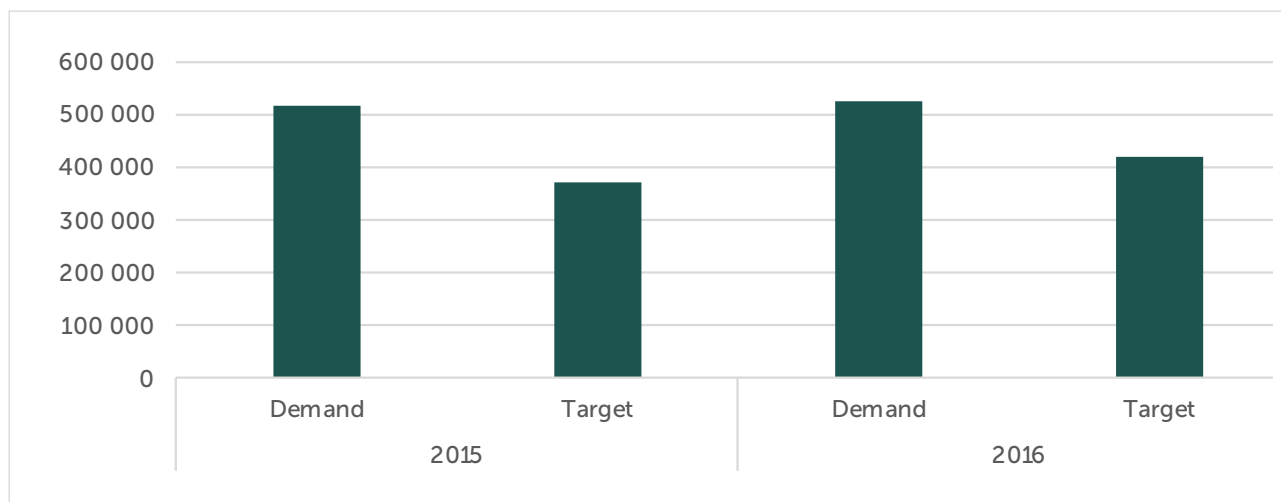


Source: (Department of planning, monitoring and evaluation, Department of Basic Education and Department of Transport, 2019)



Furthermore, it is crucial to note that the number of targeted learner transport beneficiaries always falls below the total number of qualifying learners, as illustrated in Figure 3.9. For example, for 2015/16, 516 886 learners required and qualified for learner transport, while the total target for that year stood at 371 422 learners (71.9 per cent), implying that about 145 464 qualifying learners had no choice but to walk long distances to and from schools. In 2016/17, of the 524 662 qualifying learners, only 420 240 were targeted by provinces. As a result about 104 422 needy and qualifying learners had to walk long distances to and from schools.

Figure 3.9: Demand and targeting of learners

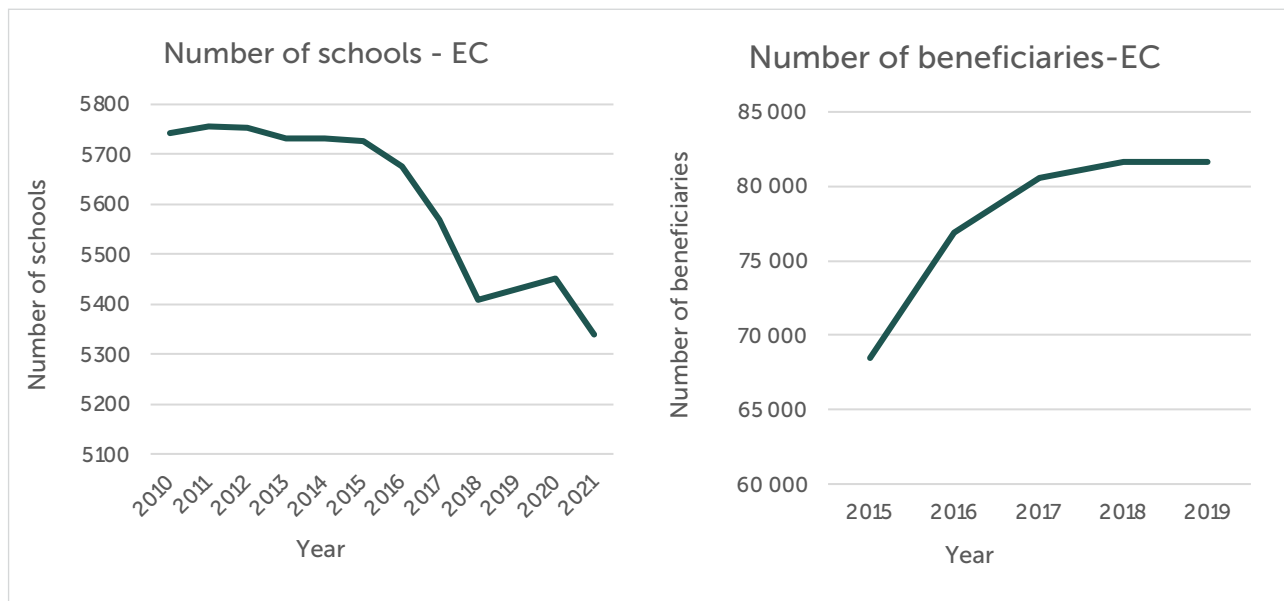


Source: (Department of Basic Education, 2015, 2016)

(b) Analysis of learner transport demand in selected provinces

Concerning the demand for learner transport in the Eastern Cape province, it is important to note the relationship between the number of schools and the number of beneficiaries, as illustrated in Figure 3.10. While the number of schools in the Eastern Cape province has significantly decreased between 2015 and 2019, the number of learners benefitting from learner transport has increased substantially, confirming an increased need to transport learners to nearby schools resulting from the schools rationalisation programme. It is also important to note that the number of learners in the Eastern Cape decreased significantly from 2 052 286 in 2010 to 1 848 053 in 2021.

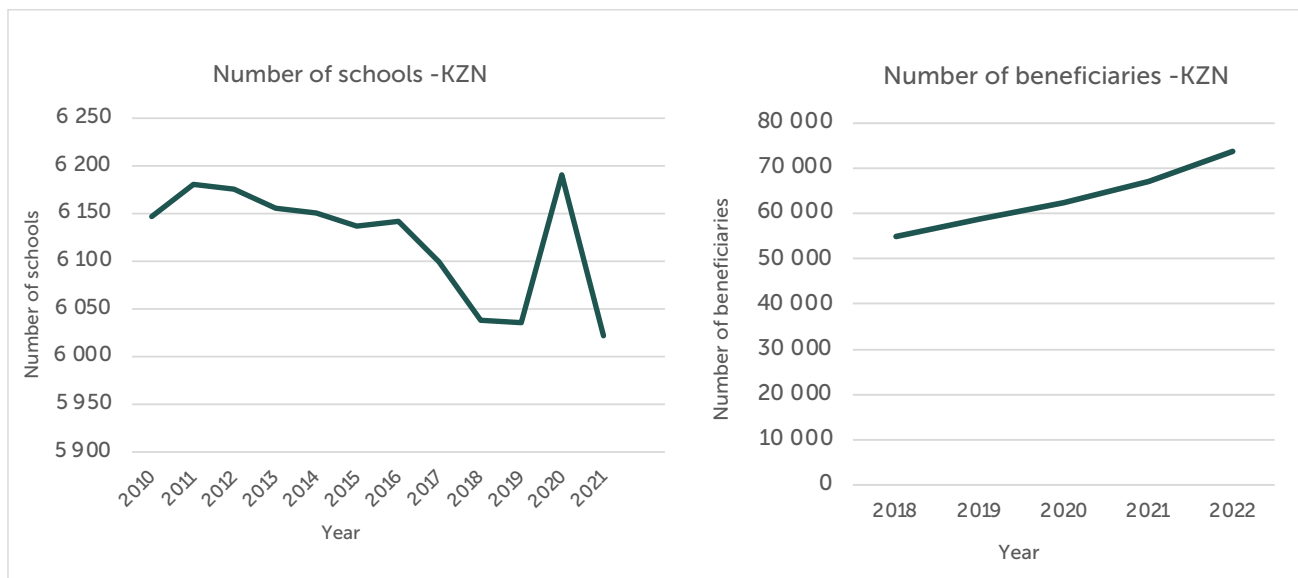
Figure 3.10: Number of schools and learner transport beneficiaries in the Eastern Cape



Sources: (Department of Basic Education, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)

With respect to KwaZulu-Natal, the same trend applies. Figure 3.11 illustrates a decreasing number of schools and increasing number of learner transport beneficiaries as is the case in the Eastern Cape. However, the difference between the two provinces is that KwaZulu-Natal has experienced a slight increase with respect to learner numbers between 2010 and 2021 (from 2 806 988 to 2 893 858).

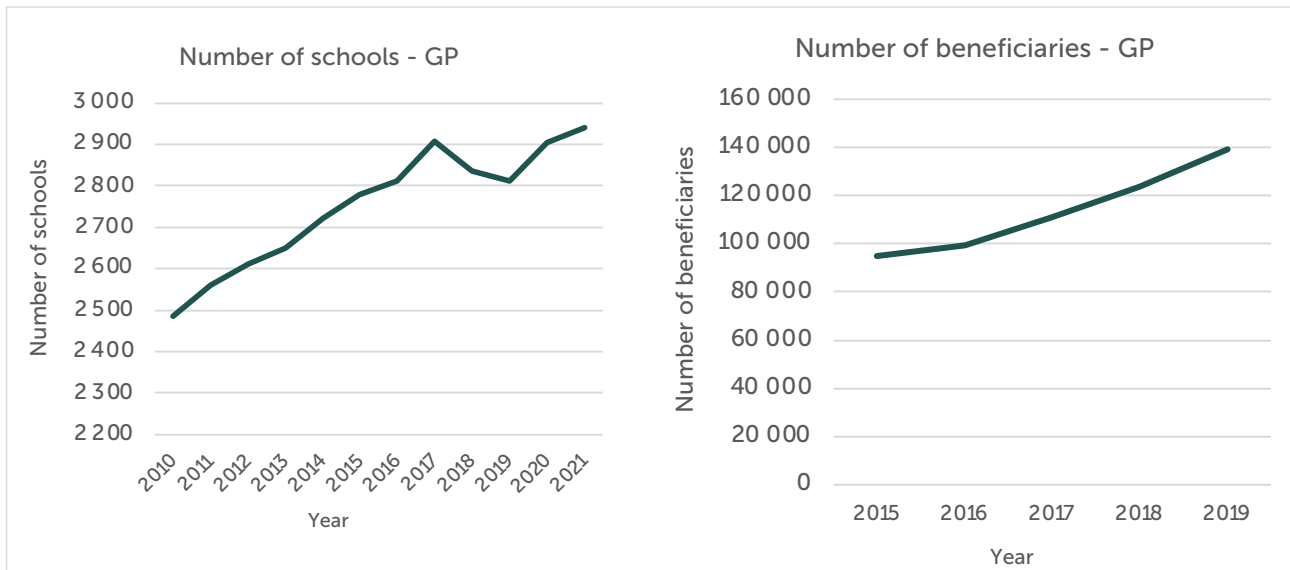
Figure 3.11: Number of schools and learners benefiting from learner transport in KwaZulu-Natal



Sources: (Department of Basic Education, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)

Contrary to the Eastern Cape and KwaZulu-Natal, Gauteng exhibited an increasing number of schools and learner transport beneficiaries from 2015 to 2017 and a decreasing number of schools with an increasing number of learner transport beneficiaries in 2018 and 2019, as illustrated in Figure 3.12.

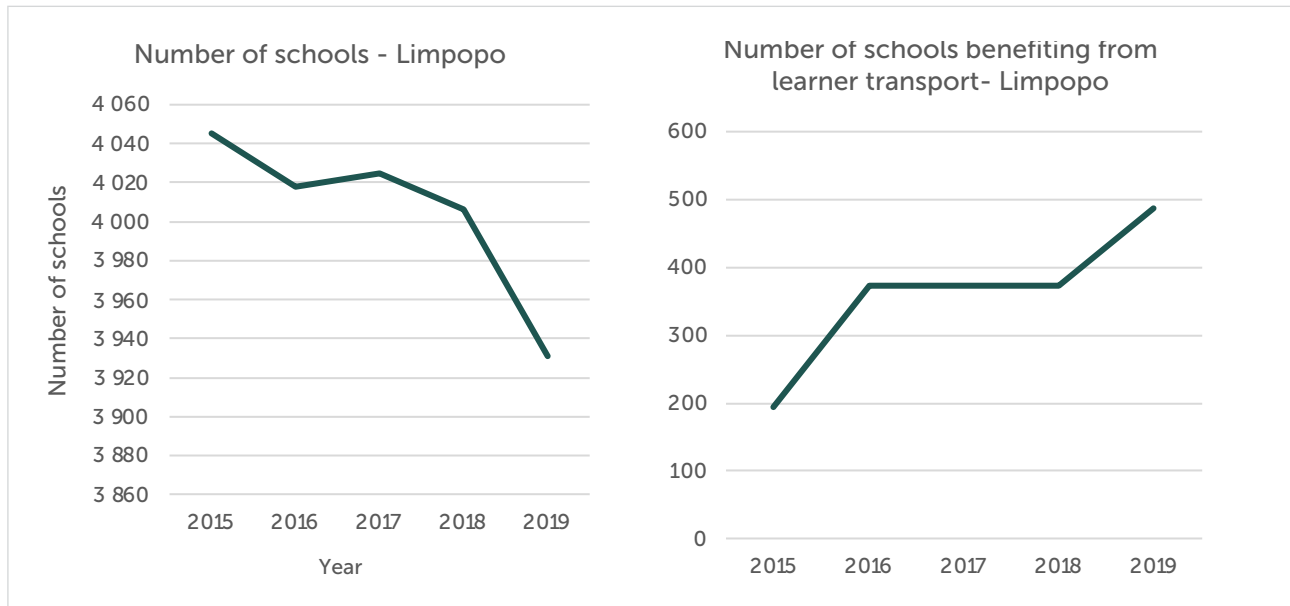
Figure 3.12: Number of schools and learner transport beneficiaries in Gauteng



Sources: (Department of Basic Education, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021)

Figure 3.13 shows the decreasing number of schools in Limpopo between 2015 and 2019. Over that period, schools decreased from 4 045 to 3 931 (114 schools). At the same time, the number of schools benefitting from learner transport over the same period increased significantly from 194 to 488 (additional 294 schools). This indicates that the number of schools benefitting from learner transport increased more than a decrease in the number of schools in the province.

Figure 3.13: Number of schools and number of schools benefitting from learner transport in Limpopo

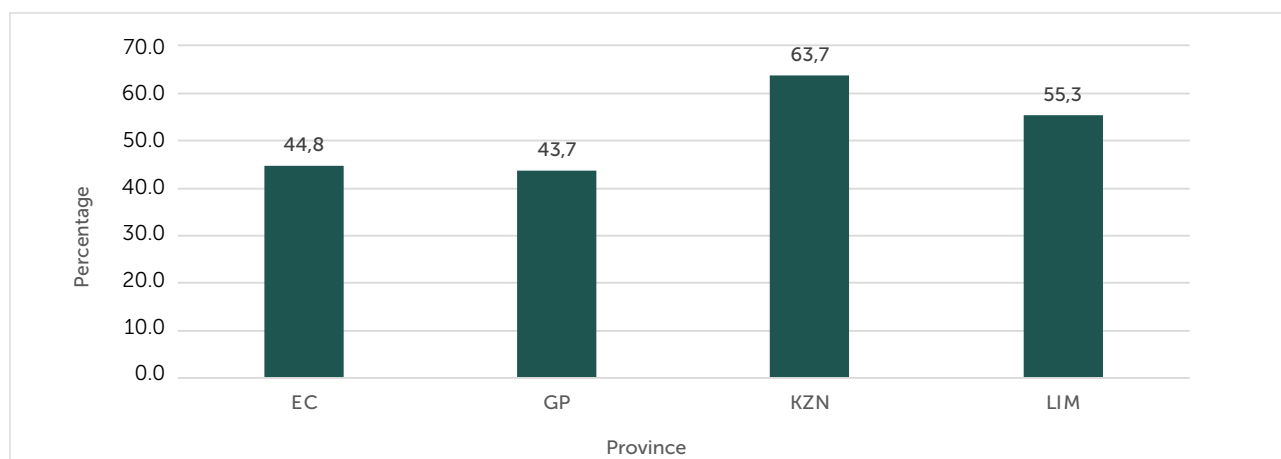


Sources: (National Treasury, 2015, 2016, 2017, 2018, 2019)

The number of learner transport beneficiaries in each of the four provinces has been increasing over the past six years, which indicates an increasing need for learner transport. It is also important to note that while the number of learner transport beneficiaries has been increasing, provinces indicated that the provision of learner transport has not been close to addressing those in need of learner transport.

Figure 3.14 shows a significant increase in the number of beneficiaries, with a growth of over 63 per cent in KwaZulu-Natal and over 55 percent in Limpopo. The growth in the number of beneficiaries of learner transport has serious implications on the funding/ budget for the learner transport programme especially given fuel price increases. While the growth rate is driven by various factors, including a reduction in the number of schools in most rural provinces (for example, in the Eastern Cape, the Department of Education indicated that 211 schools were under rationalization in 2016 alone), in Gauteng, the need for learner transport is attributed to in-migration growth in informal settlements as well as of new developments without schools (Gauteng Department of Education, Annual Report 2015-2016).

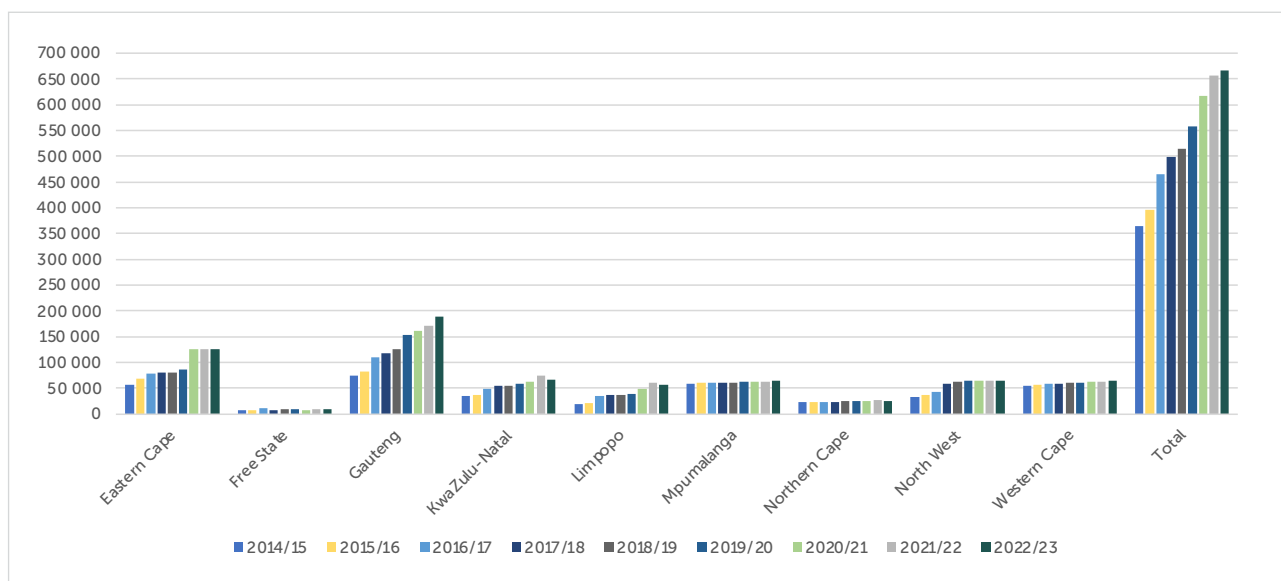
Figure 3.14: Beneficiary growth rate between 2015-2021



Source: Own calculation based on (Limpopo education department, 2015) and officials, (Eastern Cape Department of Transport, 201, 2016,2017, 2018, 2019, 2020,2021), (Gauteng department of education, 2015, 2016, 2017, 2018, 2019, 2020, 2021), (KwaZulu-Natal department of education, 2015, 2016, 2017, 2018, 2019, 2020, 2021) and officials Supply for learner transport

The reported supply of learner transport for the period 2014/15 to 2022/23 indicates an average annual increase of 7.86 per cent in the total number of learners transported from 363 529 in 2014/15 to 665 806 in 2022/23. Provinces with the highest number of learners transported are Gauteng which reported transporting 188 685 learners in 2022/23, representing an average annual increase of 12.17 per cent over the period 2014/15 to 2022/23. The Eastern Cape indicated that 125 423 learners were transported in 2022/23 which is an average increase of 10.32 per cent over the same period. Limpopo showed the highest average annual increase of 14.55 per cent from 18 908 learners in 2014/15 to 56 065 in 2022/23.

Figure 3.15: Learners transported 2014-2022

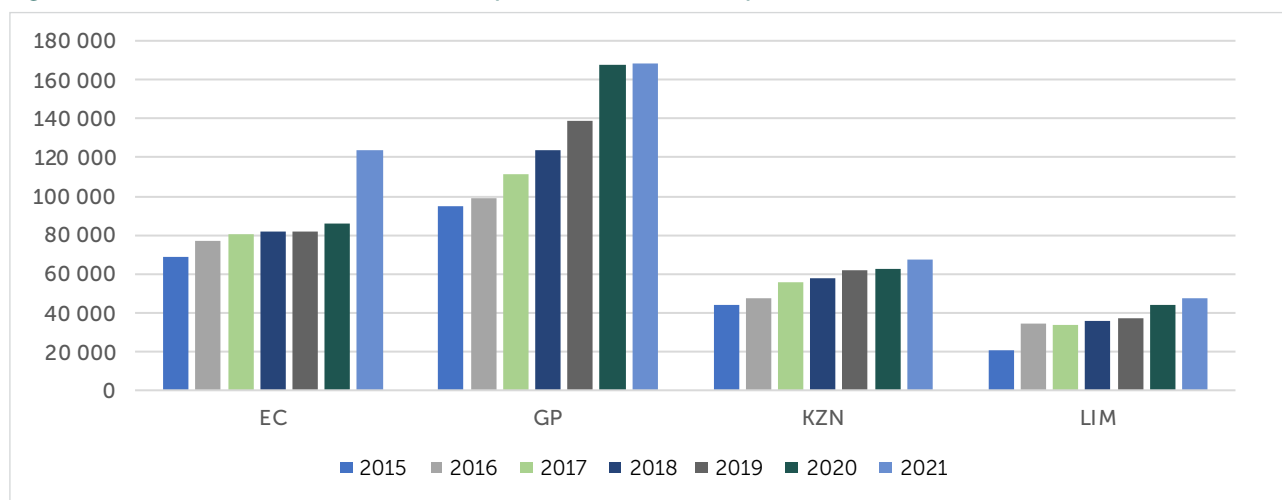


Source: (Department of planning, monitoring and evaluation, Department of Basic Education and Department of Transport, 2019)

Concerning the supply of learner transport, Figure 3.16 illustrates the number of learners who benefitted from learner transport from the four selected provinces for seven years from 2015 to 2021. The provinces with the highest number of beneficiaries are Gauteng and the Eastern Cape (provinces with highest growth in learner enrolment and the highest number of rationalised schools, respectively).

The Eastern Cape province, over the period, exhibits an increase from 68 519 to 124 036 learners benefitting from the learner transport programme (a growth of 55 517 or 81 per cent over seven years), while Gauteng's number of beneficiaries increased from 94 600 to 168 000 between 2015 and 2021. Over the same period, the number of learners who benefitted from the learner transport programme increased from 43 990 to 67 163 in KwaZulu-Natal. This indicates a significant increase in the supply of learner transport as measured by the number of learners who benefitted from the learner transport programme in both the Eastern Cape, Gauteng, and KwaZulu-Natal and a marginal increase in Limpopo.

Figure 3.16: Beneficiaries of learner transport in four selected provinces



Source: (Department of planning, monitoring and evaluation, DBE and DoT, 2019)

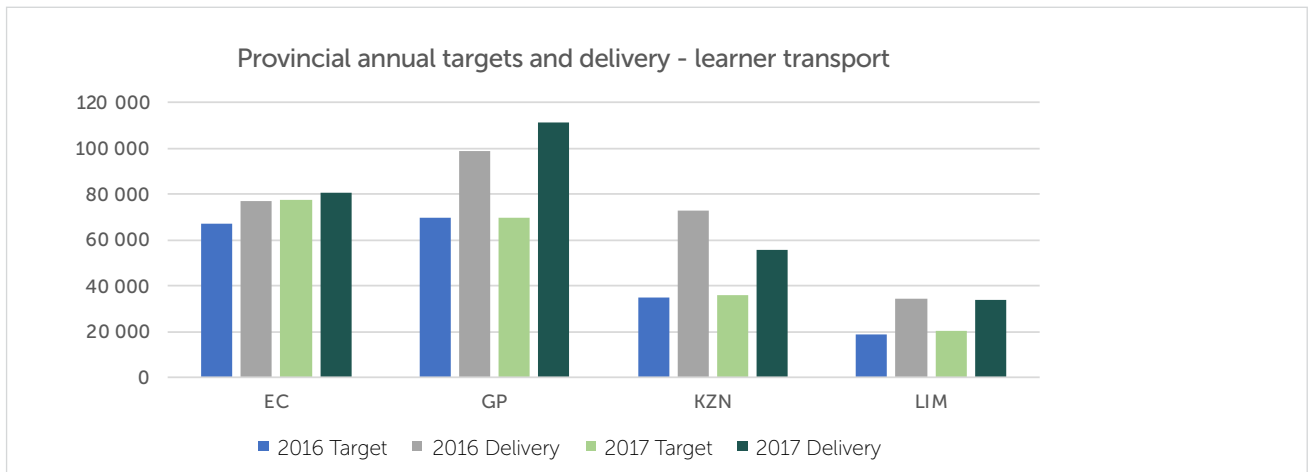
Provinces usually set annual targets concerning the delivery of learner transport. (Figure 3.17 compares targets and actual delivery in four selected provinces.) Data is not available to examine how these provinces have been performing with respect to the achievement of set targets over a longer period. From available data, the study could explore and analyse performance for only two years, 2016 and 2017. What is notable on Figure 3.17 is the over-achievement of a set number of learners benefitting from the learner transport across all four.

In Gauteng province, for example, in 2016, the province planned to provide learner transport to 70 000 learners but actually provided learner transport to over 99 000 (29 000 more learners). The same applies in 2017, where the target was to provide learner transport to 70 000 learners, but a total of 111 053 learners were provided with learner transport (over 41 000 more learners).

KwaZulu-Natal planned to provide learner transport to 35 000 learners in 2016, but reported over 72 000 beneficiaries, representing more than a 100 percent increase above target. These significant differences between planned and actual learner transport beneficiaries raise several questions, including how provinces set beneficiaries targets, and understanding of what constitutes learner transport needs. The findings of the study indicate that provinces are mainly constrained by funding as provinces normally set lower targets than the actual demand for learner transport.

Interviews with relevant officials from the departments of basic education and transport revealed that the over-achievements of set targets are in the main as a result of passenger overloads.

Figure 3.17: Selected provincial planned and actual delivery of learner transport



Source: (Gauteng department of education, 2016, 2017)

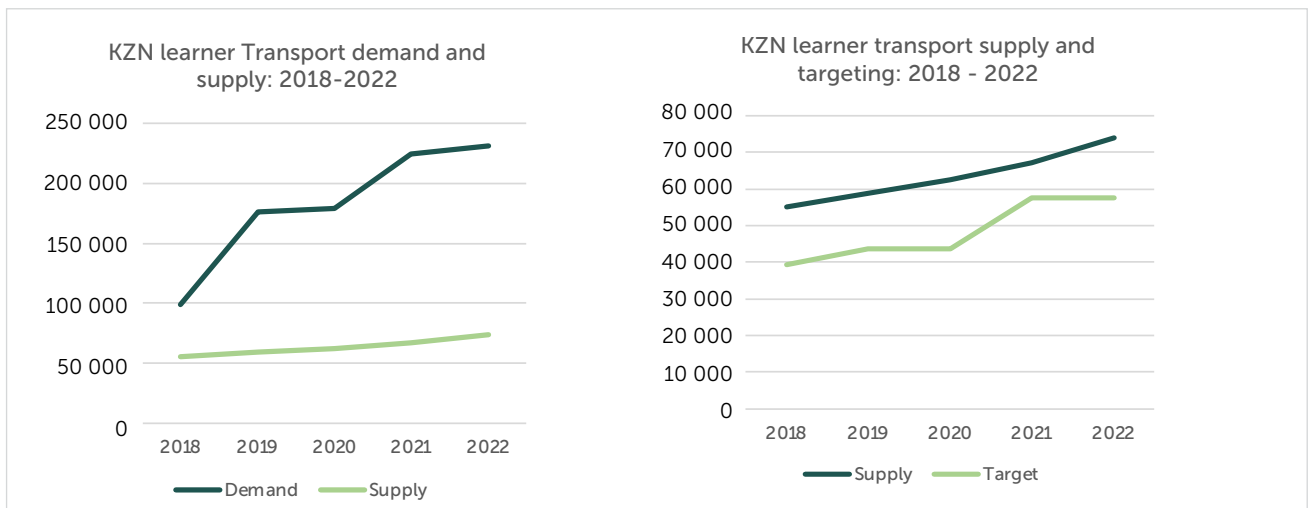
(c) Demand, supply and learner transport beneficiaries and targeting

Analysing the demand and supply for learner transport in these four selected provinces is important to understanding the actual gap and causes of such discrepancies.

For KwaZulu-Natal, Figure 3.18 illustrates a rapid increase in the demand for learner transport for the period between 2018 to 2022 as the demand increased from 99 067 to 231 471 with a steady increase in the supply for learner transport over the same period. Key to note is an increasing gap between the demand and supply for learner transport (this gap increased from 44 000 in 2018 to 157 538 in 2022). This shows that the province is unable to assist a large number of learners who need learner transport. Key to note though, is that the KwaZulu-Natal learner transport policy is different from other provinces with respect to learner’s eligibility.

While other provinces consider a distance of at least 5 kms, KwaZulu-Natal considers 3 kms, which to some extent explains the gap. Whether the KwaZulu-Natal distance of 3 kms is reasonable or not compared to 5 kms is debatable. Furthermore, Figure 3.10 illustrates that the number of beneficiaries over the five years always exceeded the number of targeted learners. For example, in 2022, the number of targeted learners is 57 728, while the actual number of learners being ferried is 73 933 (a difference of 16 205). The difference between the number of targeted learners and the number of beneficiaries each year constitutes overload and indicates risk and non-compliance with safety regulations and this could compromise the lives of learners.

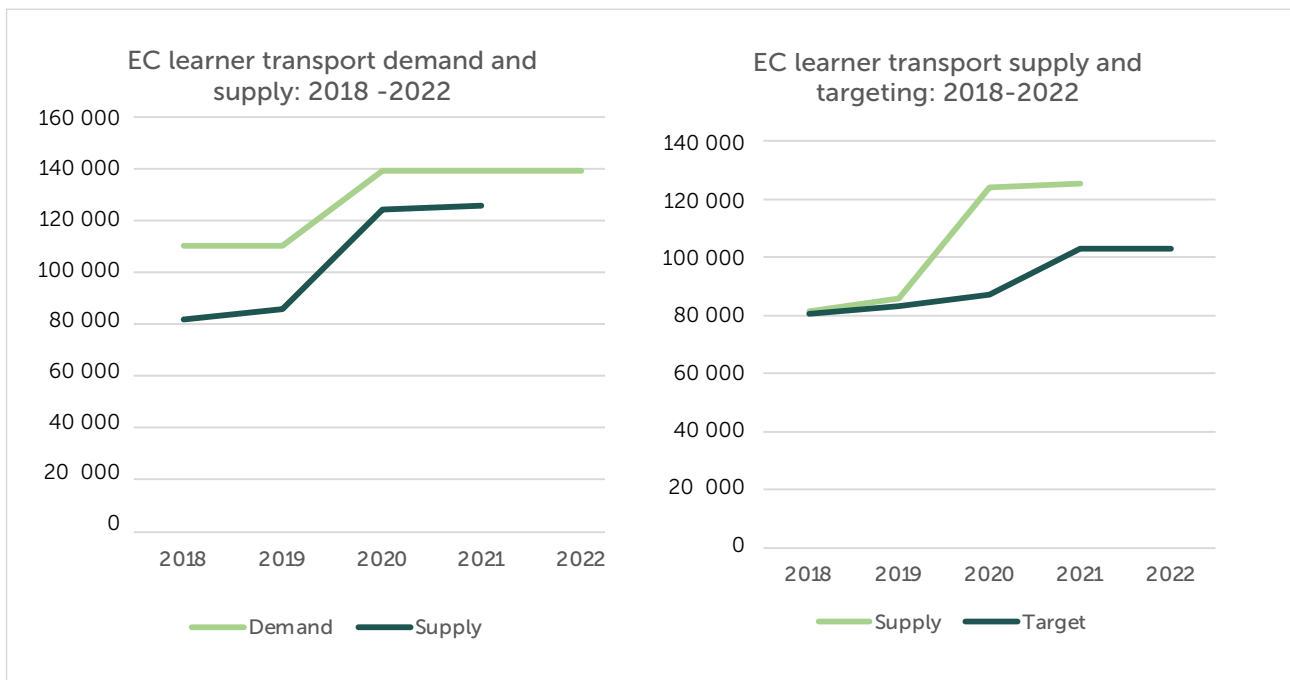
Figure 3.18: KwaZulu-Natal demand and supply



Source: Officials KZN

With respect to the Eastern Cape, the demand for learner transport exceeds the supply over the five-year period, but the gap is not widening as is the case in KwaZulu-Natal. However, concerning the supply and targeting, the gap is widening indicating the pressure faced by the province. More supply (the actual number of beneficiaries) than targeted learners implies two things. Firstly, overloads and non-compliance compromising the safety of learners. Secondly, engagements with officials from the Eastern Cape Department of Education revealed that this is in some instances a result of weaknesses in the systems as contracts are signed for five years with operators and some learners who might have passed matric would still be reported as ferried or learners who just entered the system would not be accounted for.

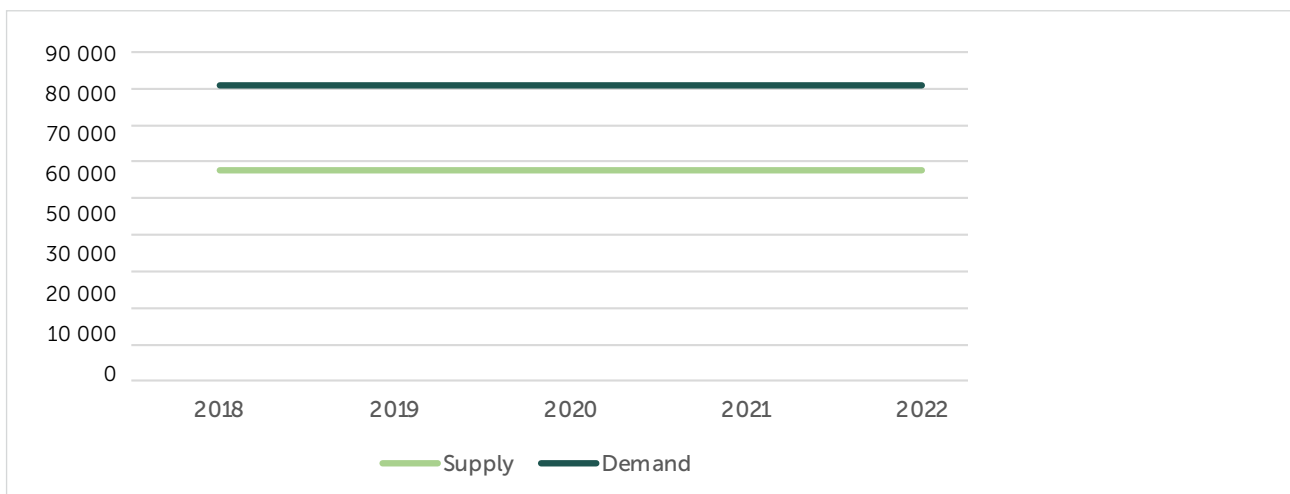
Figure 3.19: Eastern Cape demand and supply



Source: Officials from the provincial Department of Education and Transport, EC

Concerning learner transport in Limpopo, demand and supply for learner transport has been constant over the past five years, according to data received from the Provincial Department of Education. Analysis on targeted number of learners has not been undertaken because of unavailability of data.

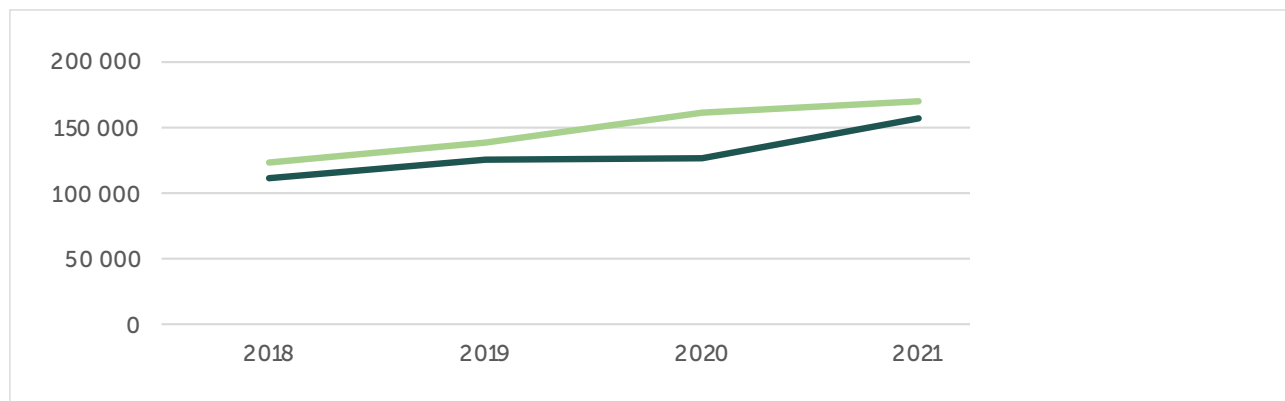
Figure 3.20: Limpopo demand and supply 2018-2022



Source: Officials from Limpopo provincial department of education

With respect to Gauteng supply and targeting of learner transport, Figure 3.21 illustrates a widening gap between 2019 and 2020 (33 798) because of an increased demand for learner transport due to new human settlements developments.

Figure 3.21: Gauteng demand and supply 2018-2022

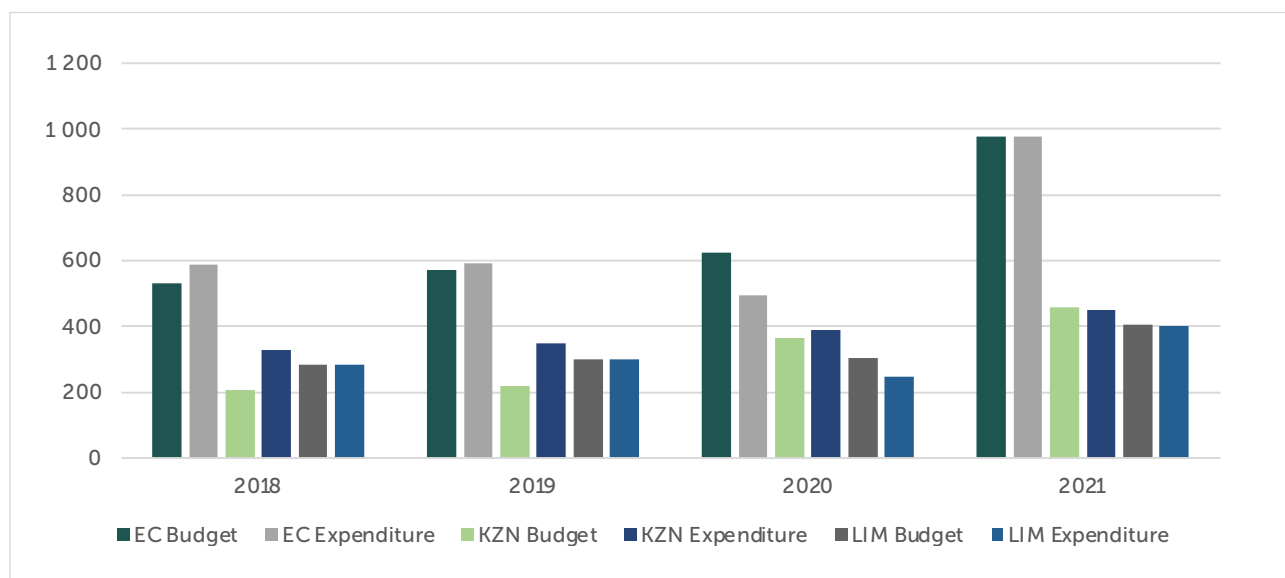


Source: (DBE, 2010-2021)

3.5.2.3 Budget and expenditure on learner transport in provinces

There are gaps with respect to the budget and expenditure data on learner transport. In some provinces, the budget for learner transport is included with other items under the goods and services classification, and this makes it difficult to determine how much is allocated for the programme. Figure 3.22 illustrates over-expenditure prior to 2020 as funding made available for learner transport has been inadequate. Learner transport expenditure for the Eastern Cape in 2020 and for KwaZulu-Natal in 2021 is below the budgeted for amount and is attributed to COVID-19 as schooling was seriously impacted.

Figure 3.22: Budget and expenditure – Eastern Cape, KwaZulu-Natal, and Limpopo



Source: Officials from the provincial departments of Education and Transport, Eastern Cape, KwaZulu-Natal & Limpopo

3.6 CONCLUSION AND RECOMMENDATIONS

LTSM and learner transport have been recognised as essential elements in relation to fulfilling the constitutionally enshrined right to a basic education in South Africa. Based on the crowding out of non-personnel spending in the basic education sector, important educational inputs and services such as LTSM and learner transport are threatened. The FFC undertook this analysis to understand the policy context, funding and institutional issues underpinning the provision of LTSM and learner transport in South Africa. Based on the preceding analysis, the following recommendations are proposed:

With respect to LTSM, it is recommended that:

1. *The Minister must ensure that the draft LTSM policy, which has been stalled since 2014, is finalised and approved.*

The Commission welcomes the draft policy's intention to achieve enhanced LTSM delivery systems. However, it is imperative that this policy be finalised as it will serve to convey governments broad aspirations around the provision of LTSM and the priority attached to its provision. To this end and what the Commission noted as a gap in the draft policy is a strong emphasis on eLTSMs. The Commission sees the shift towards utilisation of eLTSMs as key to addressing broader equity concerns within the basic education sector. The shift to eLTSMs is also one of the basic education aspirations identified in the NDP. To this end the Commission advises that this aspect be strengthened as the policy is finalised.

2. *Funding for LTSMs should be prioritised, especially for quintiles 1, 2 and 3 schools. National funding norms need to be developed to guide spending on LTSM per child, per phase – foundation, intermediate, senior and FET. Moreover, specific priority should be given to the provision of LTSMs for learners with special educational needs. Moreover, specific priority should be given to the provision of LTSMs for learners with special educational needs.*

The funding of LTSMs are wrapped up in the per learner funding that is allocated to schools annually through the School Funding Norms and Standards policy. Currently this funding instrument distinguishes between the quintile that a learner is in. So, for example learners in quintiles 1, 2 and 3 get relatively more funding than a learner in a quintile 4 or 5 school (which is presumed to be relatively better resourced). However, the funding is not differentiated based on grade/stage of learning. Thus a learner in Grade 1 at a quintile 1 school is allocated the same amount as a learner in grade 10 in a quintile 1 school – this is despite the fact that the LTSM needs of these learners are different. In addition to the FFC calling for greater funding priority for LTSMs particularly for those learners in the poorer, quintile 1 to 3 schools, the development of funding norms is also recommended to guide spending on LTSMs taking into consideration a learner's stage of education and thus the changing LTSM needs that come with those different stages. Further, in relation to funding of LTSMs, the FFC's analysis highlights the marginal LTSM funding allocated to public special schools. According to the FFC's analysis of provincial education budgets, an average of 0.6 per cent of total LTSM spending is allocated to LTSMs in public special schools over the period 2010/11 to 2020/21. As, a result the Commission also calls for specific priority to be given to LTSMs for learners with special educational needs and that there should be proper costing and support to provide LTSMs for these learners.

3. *LTSMs are critical in improving reading for meaning. The Minister of Basic Education must fund a national programme that is aimed at improving reading for meaning and which is uniformly implemented across the nine provinces. Lessons from successful local initiatives must be drawn on to determine which approaches are likely to succeed.*

The provision of LTSMs, such as readers, are crucial to improving early grade reading and reading for meaning. This is a particular challenge in South African where most children (as at 2023, 82 per cent of Grade 4 learners), continue to lack the fundamental ability to grasp the content of what they read – this is true, whether evaluated in their native tongue or English. The Commission is of the view that various initiatives exist locally that have proven success in improving early reading skills and reading for meaning abilities – these include the Vula Bula and Funda Wandé initiatives. To this end, the Commission encourages DBE to fund a national programme across all nine provinces, that prioritises early grade reading and reading for meaning and which focuses on broad access to readers and training for teachers. Particular focus should be placed on the foundation phase and collaboration with non-government organisations should be considered when developing this programme.

4. *To aid improved monitoring and oversight of LTSMs (particularly textbooks) to achieve the goal of universal coverage, the Minister of Basic Education must expand the modules contained in the SA-SAMS to include LTSM.*

A monitoring tool can assist in mitigating potential LTSM provisioning failures. In addition, such a tool can also assist in ensuring more efficient and effective spending as the requisitioning of LTSM in schools will be aligned with previous years' retrieval and retention rates and current inventory rates. Given that the costs of procuring these types of systems can be exorbitant, it is recommended that the sector leverage existing systems that are already being used to collect data and aid monitoring and oversight. To this end it is recommended that options around using the SA School Administration and Management System are explored. This system is currently provided free of charge to schools to upload and update learner-related information and could thus be extended to allow provincial education departments to capture LTSM-related data.

With respect to learner transport, it is recommended that:

5. *The national and provincial departments of transport and basic education should improve data collection and reporting and ensure that accurate data on learner transport, including annual demand and expenditure is reported and made publicly available through annual reports.*

Data collection on learner transport will improve understanding of the demand and growth, planning and budgeting for learner transport, and ensure that there are no discrepancies with respect to the demand for learner transport departments such as the National Department of Transport and national Departments of Basic Education and provinces. Improvements in data collection and reporting will facilitate enhanced oversight and monitoring, paving the way for efficacy and efficiency evaluations as well as assisting with the development of appropriate norms and standards costing for the provision of learner transport.

6. *Infrastructure delivery should be planned holistically and coordinated to ensure that, where possible, the need for learner transport is kept to a minimum, particularly in areas experiencing an inward migration of learners. This requires coordination between the various infrastructure delivery plans such as human settlements and school infrastructure. Furthermore, provincial treasuries and PEDs must ensure that school infrastructure delivery plans for building new schools in provinces prioritise areas with sustained higher demand for learner transport or with higher learner transport beneficiaries.*

This will ensure that infrastructure delivery plans by different departments are aligned and will not negatively impact other sectors; for example, the human settlements delivery plan would be aligned to other key infrastructure plans that will be needed, such as schools, and this will reduce the need or expenditure for learner transport. Contributing to an increasing learner transport demand and expenditure pressure is the lack of school infrastructure within reasonable walking distances, prioritizing areas of higher demand for

learner transport when building new schools would significantly reduce learner transport and expenditure pressures.

7. *The national and provincial treasuries, in consultation with provincial departments of transport and basic education, should develop a new funding model for learner transport. Such a model must also include flexibilities for provinces to address emergency contracts to provide learner transport.*

Currently, learner transport funding is inadequate, as characterised by over-expenditure, and the annual budget adjustments in provinces. A new funding model will ensure that adequate funding for learner transport is budgeted correctly without a need for adjustments later.

8. *The provincial departments responsible for learner transport should develop systems to verify the number of learners transported through the learner transport programme annually to ensure that annual changes are captured and accounted for (learners pass primary and move to secondary schools, learners pass matric while some drop out).*

This will ensure that annual changes in the number of learners being ferried through the learner transport programme are determined on time. These changes could be a result of deaths, dropouts, learners completing matric, new learners entering the programme (for example, learners from primary to secondary schools, etc.).

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CHAPTER 4:

Assessing the Response to Climate Change in Local Government

4.1 INTRODUCTION

The United Nations Framework Convention on Climate Change (UNFCCC) (2008) defines climate change as temperature change attributed directly or indirectly to human activity that alters the global atmosphere. Thus, globally, climate change is a real threat as it destabilises economies and livelihoods and disproportionately affects vulnerable and the marginalised people. The World Bank on Climate Change Action Plan (2021-25) states that while the COVID -19 pandemic and economic crisis have devastating effects, addressing climate change issues while meeting the needs of society will be the most significant challenge of the 21st century.

At the same time, addressing climate change issues offers a window of opportunity to transition to a low carbon and resilient climate economy to achieve sustainable development goals (poverty, unemployment, and inequality). The global rise in temperatures will be detrimental to all economies if respective governments take no action. The world economy is expected to shrink by 4.2 per cent, while growth in Africa will shrink by 4.7 per cent if the rising temperatures increase below 2°C (Swiss Re Institute, 2021). South Africa is ranked the highest emitter of greenhouse gas (GHG) on the African Continent and the 14th highest emitter globally (Department of Environmental Affairs, Forestry, and Fisheries, 2011; Reddy et al., 2021; One World Sustainable Investments, Sustainable Energy Africa, & Adelphi, 2018). As per the National Climate Change Response White Paper (2011) and National Climate Change Bill (2018), South Africa has committed to reducing green house gas (GHG) emissions by 42 per cent by 2025.

In committing to meeting climate change targets and sustainable development, South Africa is a signatory to various international agreements such as the Kyoto Protocol 1997, the United Nations Framework Convention on Climate Change 1992, the Conference of Parties (COPS) 1994, and the Paris Agreement 2015. In translating those international commitments into reality, South Africa has put in place various pieces of legislation, policies, plans, and strategies such as: the Constitution, the National Environment Management Act 1998, Climate Change Bill 2018, National Climate Change Response Policy 2011, National Development Plan 2010, Medium Term Strategic Framework 2019-2024, Low-Emission Development Strategy 2020, the National Adaptation Strategy 2020 and a 2022 Framework for a Just Transition. These all have the objective of mitigating and adapting to climate change impacts and environmental effects, while integrating them into planning documents.

Recently, a report on 'Framework for a Just Transition' in South Africa published by the Presidential Climate Commission (2022) highlights the importance of strengthening adaptation to improve resilience to climate impacts. A just transition framework is South Africa's strategic plan to achieve a just and equitable transition to net zero greenhouse emissions by 2050, while fostering climate resilience. According to the Presidential Climate Commission (2022), the transition to low emissions and climate resilience will create employment, protect the environment, and improve human health while growing the economy.

It is in this context that subnational government should play a crucial role in responding to climate change impacts and coordinate 'just transition measures' in their respective jurisdictions by: identifying climate change impacts and vulnerability in their jurisdictions; identifying community needs and adaptation measures; implementing and managing adaptation projects such as disaster management strategies and early warning systems; regulating and supporting sustainable use of land management; empowering communities to

implement climate change measures and just transitions; as well as fostering collaborations with social partners which should all be integrated into development plans i.e. Provincial Development Plans/Strategies/Integrated Development Plans and Climate Actions plans. (Presidential Climate Commission, 2022).

In response to climate change, the National Department of Environmental Affairs, the South African Local Government Association (SALGA), and Cooperative Governance and Traditional Affairs (COGTA) published a 'Let's Respond Tool Kit (2011)' to assist municipalities in integrating climate change risks and opportunities into integrated development plans (IDPs). The Lets Respond Tool Kit, as per Figure 4.1, is a step-by-step process that enables municipal officials to drive the process. The tool kit offers guidance on a variety of subjects including, among others, conducting a situational analysis where local climate change impacts and emissions in the area are identified and assessed, followed by the development of a vision and strategy on municipal climate change response that should be integrated into municipal planning documents of municipalities for climate responsive IDPs, that should be implemented across municipalities.

More than ever, local climate action response is vital for South Africa to meet the National Determined Contribution (NDC) imperatives in line with Paris Agreement, while also addressing poverty alleviation, inequality, and unemployment. Thus, in 2019 Local Government Climate Change Support Programme (LGCCSP) was established by the National Department of Environment, Forestry and Fisheries (NDEFF) and SALGA with the aim of building climate resilience at the municipal level. This was done by embarking on vulnerability assessments, identifying emissions sources and developing climate change response plans for districts local municipalities as well building capacity through conceptualising and costing of climate change response project at the local government level.

Local government is experiencing the burden of climate change first-hand, as it is the sphere closest to people. The rural poor, mainly, are most vulnerable because they depend significantly on climate-sensitive ecosystems for their livelihoods and they are also financially less able to withstand climate shocks' impact. On the other hand, urban inhabitants risk many climate-related disasters that affect urban infrastructure, water, and energy resources.

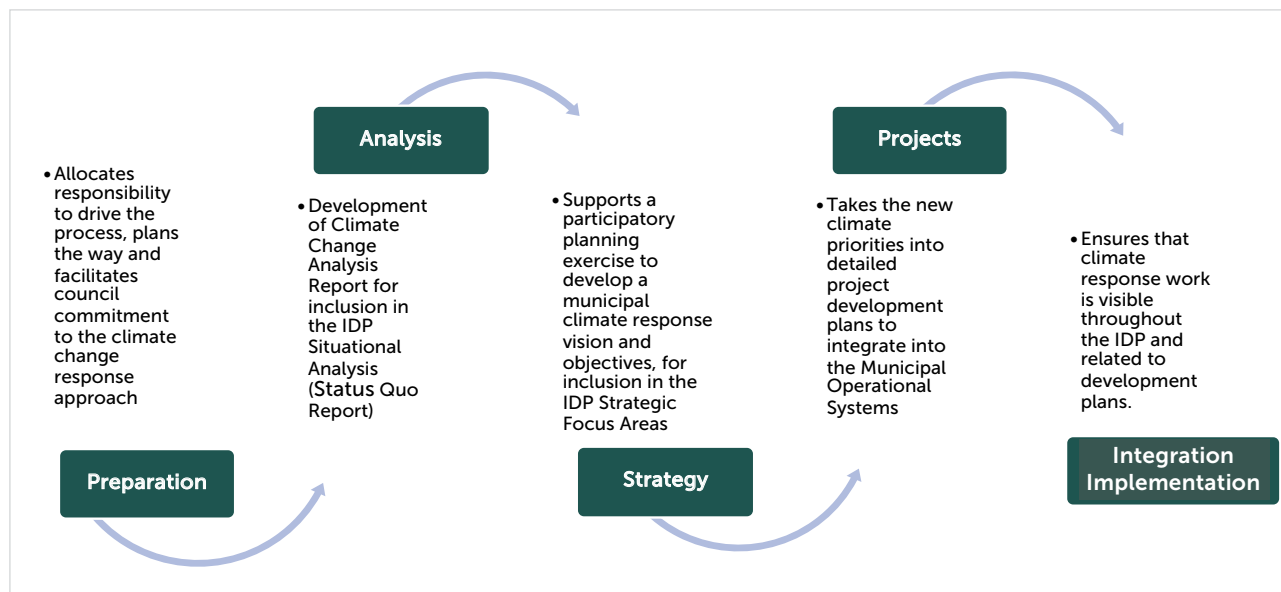
There are two main ways of responding to climate change: mitigation and adaptation. Robust mitigation and adaptation hinge on effective planning, especially at a local level. For local development to be resilient to the impacts of climate change, effective planning, and adequate budgeting are essential steps in responding to the challenge of climate change. Effective planning enables policymakers to detect possible policy conflicts, reduce risks and vulnerability, avoid maladaptation, identify potential opportunities resulting from climate change, infuse adaptation activities in the planning stage, introduce monitoring and evaluation activities to track the performance of climate change measures, and by and large, influence allocation of resource to climate change activities at the crucial planning stage.

In the South African local government sector, IDPs are an essential tool for managing planning and budgeting at a local level. Climate change is an important policy agenda, but it must first find meaning in the IDP and budgets. Ideally, IDPs are meant to set the tone for climate change mitigation and adaptation, prioritise *climate change activities, and indicate how resources are to be deployed to deal with the risks associated with climate change*. As the sphere directly bearing the brunt of climate change, the question that begs the mind is: how responsive are municipalities to opportunities and threats posed by climate change? A municipality's responsiveness to climate change can be determined through its planning and budgeting processes that mainstream climate change obligations.

This Chapter evaluates the responsiveness of municipal IDPs and budgets to climate change and is based on a comprehensive and systematic review of IDPs and the budgets of municipalities. The focus is on municipalities in KZN, Western Cape, Eastern Cape, and Gauteng provinces that have faced the worst droughts and floods.

The frequent incidences and severity of disasters in these provinces are there for all to see and are significantly undermining development and threatening resources, such as water and energy. These provinces have lost people, livestock, assets, and properties due to climate change. Thus, it is essential to analyse the responsiveness of these provinces to climate change.

Figure 4.1: Lets Respond Tool Kit, Integrating Climate Change into Municipal Plans



Source: (DEFF, SALGA, COGTA, 2011)

4.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS

South Africa is experiencing unprecedented and frequent disasters, such as extreme floods and droughts. Municipalities experience the consequences of these events as the sphere closest to the people. They also account for a disproportionate burden of these disasters, which are partially attributable to climate change variability.

The April 2022 floods in KZN and Eastern Cape, accompanied by a trail of destruction, attest to rising temperatures. The two provinces reported 435 deaths, displacement of 40 000 people and damage or destruction of 13 500 houses. Costs in terms of property damage were estimated at over R17 billion (Pinto et al., 2022; South African Government News Agency, 2022).

Arguably, the root causes of these disasters could be traced to, among other things, the legacy of old infrastructure not being maintained, lack of proper spatial planning, and absence of early warning systems in municipalities, increasing exposure and vulnerability (Pinto et al., 2022). Similarly, the droughts experienced in the Western Cape have highlighted the detrimental impact of climate change on the health of citizens. Due to the drought, the province experienced increased vector-borne diseases and food and water-borne disease outbreak (Chersich et al, 2018).

Climate change is a significant threat to the well-being of South Africans and the economy. It endangers the country’s water sources, infrastructure, food security, health, and ecosystem. Due to South Africa’s vast levels of poverty and inequality, climate change directly impacts inclusive economic growth (Department of Environmental Affairs, Forestry & Fisheries, COGTA, 2011). Lethoko (2016) asserts that the vulnerability of households and society to climate change is affected by their geographical location and how effectively and capable the municipality delivers services. This implies that municipalities must be at the centre of mitigation and adaptation strategies and actions, with accompanying budget considerations to address climate change.

The recent floods and drought in the KZN, Eastern Cape, Gauteng and the Western Cape are some disaster events demonstrating that climate change is real. Municipalities must mainstream climate change and implement robust response mechanisms and strategies. The National Climate Change Response Policy (2011) highlights the mainstreaming of climate change into IDPs as a critical measure in responding to climate change at the local level.

The Let's Respond Kit (2011) is designed to guide and support municipalities in mainstreaming climate change in their planning frameworks and budgeting instruments. Nowadays, the challenges of climate change require plans, policies, strategies, and budgets that should ideally reflect a municipality's sensitivity to the scourge of climate change.

However, the massive destruction caused by the recent droughts and floods in municipal areas forces us to ask several questions, vis a vis: Are local governments integrating or mainstreaming climate change in their planning, policy, or other strategic documents? Are local government budgets responsive or sensitive to climate change imperatives? If the answer to these two questions is negative, what could be done by municipalities to incorporate climate change management in their plans and budgets? If the answer to the first two questions is positive, what measures can be taken to scale up responses to climate change?

4.3 RESEARCH OBJECTIVES

The overarching objective of this chapter is to assess the responsiveness of local government to climate change. The specific objectives are to: consider whether municipal plans and budgets are climate responsive and sensitive. Further, the study will recommend possible strategies that municipalities and governments can adopt to integrate climate change into their projects and budgets.

4.4 RESEARCH METHODOLOGY AND DATA

4.4.1 Analysing IDPs for climate responsiveness

In assessing climate change responses in local government, firstly, the study followed a case study approach, that reviewed municipal IDPs in the Eastern Cape, KZN, Gauteng, and Western Cape Province. IDPs are the crucial strategic planning documents of the municipalities as they have detailed action/ implementation plans.

The analysis follows a content analysis approach (Hsieh & Shannon, 2005), whereby the content of IDPs was divided into five thematic areas that characterise most local government IDPs, namely: situational analysis, vision and objectives' actions' implementation, and options and priorities (see also Baker et al., 2012). The situational analysis (typically undertaken at the beginning or introductory parts of the IDPs) is a systematic collection and appraisal of past and present information that may influence the performance of an individual municipality. It includes some evaluation of a municipality's current and future strengths, weaknesses, threats, and opportunities.

The situational analysis provides the foundation for developing the plan's objectives, activities, and priorities. The vision provides a "photograph" of the municipality in the future, relative to where the municipality is, while the objectives are qualitative and quantitative results that the IDP intends to achieve. If climate change adaptation or mitigation is part of the municipal's priority list, such articulation should be found in the mission or objectives of the IDP. Actions are the choices, approaches, and policies the plan proposes to put in place to achieve the stated objectives. The implementation component refers to how the municipality will execute the plan. Finally, the options and priorities component identifies alternative solutions from various possible answers.

These five components of the municipal IDPs were reviewed, identifying the content related to climate change adaptation and mitigation or any content resonating with the climate change adaptation and mitigation measures. Following Geneletti and Zardo (2015), the five components content analysis was guided by a specific set of questions related to climate change adaptation and mitigation. The guiding questions were:

- *Situational Analysis*: Does the situational analysis contain any information (e.g. data/statements/analyses) that demonstrates that the municipality is aware of climate change and adaptation or mitigation in particular?
- *Vision and objectives*: Does the vision or objectives speak to climate change issues and adaptation or mitigation in particular?
- *Actions*: Are there strategies, policies, or actions designed to enhance the climate change resilience of a municipality?
- *Implementation*: Are there any implementation strategies or resources allocated to climate change mitigation or adaptation measures?
- *Options and priorities*: At the end of the IDP, is there any prioritisation of climate change-related measures?

In scoring the evaluation components, a four-level rating system was developed to evaluate how each component reflects a response to climate change. Each researcher independently rated each IDP component's responsiveness to climate change imperatives. Table 4.1 below presents a modified scoring of plan components proposed by Baker et al. (2012). In this paper, each component was rated by each author. The scores were then averaged to derive one score for each component.

Table 4.1: Scoring system used to evaluate the plan components.

Score	Situational Analysis	Vision and objectives	Actions	Implementation	Prioritisation
0	No evidence of information related to adaptation, mitigation, and other climate change issues	No evidence of objectives related to adaptation, mitigation, and other climate change issues	No evidence of climate change measures	No evidence of implementation provisions or budgets related to climate change	Climate change does not feature within the priority list of actionable items.
1	Acknowledges climate change measures only generally (not in connection to specific climate change issues)	Mentions climate change-related objectives, but lacks further definition	Mentions climate change measures but lacks a different definition	Mentions implementation provisions and budgets related to climate change measures but lacks different definition	Acknowledges climate change as a priority, but lacks further detail on which adaptation and mitigation strategies will be prioritised
2	Acknowledges climate measures in the context of specific climate change issues	Includes climate measures in the objectives and provides some details on their specific content and how to pursue them	Includes climate measures in the actions and provides some details on their application and activities	Includes climate-related implementation provisions and provides some details on their application	Development, consideration, assessment, and prioritisation of alternative climate adaptation solutions.
3	Acknowledges climate measures and describes (at least qualitatively) the potential climate change adaptation effects	Includes climate measures in the objectives, provides details on their content, and describes links with related planning and policy processes at the local/regional level	Includes climate measures in the actions and provides information on their application and activities, including locally specific details	Includes climate-related implementation provisions and provides information on their application, including details on budget, responsible bodies, etc	Identifies which options to be pursued, resources (both human and otherwise) that will be deployed, and timeframes.

4.4.2 Analysing climate change responsiveness of budget

Secondly, the budget documents of these municipalities would be assessed to ascertain if there is funding dedicated to climate change response and its related environmental impacts. The budget documents of the selected municipalities must be analysed to evaluate whether municipal budgets within the budget value chain are climate responsive and sensitive.

4.5 LITERATURE REVIEW

This literature review section focuses on two aspects: (i). local government plans for climate change responses, and (ii). responsive climate change budgeting.

4.5.1 Responsiveness of Local Government Plans to Climate Change

The United Nations Development Programme (UNDP) (2008) states that the debate on climate change is over, clearly pointing to the need to act now by learning to live with the changes (adapt) and reduce the impacts (mitigation). Since it is the first point of call when disaster strikes, the local government needs to mitigate (reduce) and adapt (cope) to assist communities in reducing and coping with the effects. Deri (2008) argues that in tackling climate change response, an integrated twin-track approach should be used. Mitigation of the causes that drive climate change i.e. reducing the use of fossil fuel and fossil energy and adaptation to the effects of climate change, require increased investment into local infrastructure and local people to cope with and take advantage of opportunities of local changes to the impact of climate change.

Given their proximity to communities, literature acknowledges that local governments have a significant role in addressing the challenges posed by climate change. Many local governments worldwide are increasingly aware that climate change is not something they can assume away or for national governments to deal with.

The process of integrating climate change response into municipal planning is called mainstreaming. Lebel et al. (2011) define mainstreaming as incorporating adaptation and mitigation measures into the government's developmental planning, policymaking, budgeting, implementation, and monitoring measures. Strategies, plans, and government programmes are analysed through a climate lens (ensuring that climate change impacts are responded to). At a sectoral level, mainstreaming of adaptation involves four stages: (i) at sectoral planning, climate lenses are applied where opportunities/ threats to climate change are identified; (ii) at the planning stage, interventions could be sought on appropriate adaptation measures needed; (iii) during the resource allocation phase, a project proposal is assessed as to whether climate change risks need to be addressed; finally (iv) with monitoring and evaluation measures to track the performance of the adaptation interventions and measures (Lebel et al., 2011).

Kok and de Coninck (2007) further suggest the need to interlink climate change policies with various relatable policies to mainstream climate change, enhancing climate change measures while improving the effectiveness of other policy areas. Lebel et al. (2011) support the above arguments by stating that for mainstreaming to be effective, climate change measures (adaptation and mitigation) should be seen as a developmental issue rather than an environmental one. This will result in climate change measures being allocated budget and integrated into developmental planning-for example, mainstreaming climate change with potential benefits and relevant policies such as poverty reduction, rural development, and agriculture, disaster management, and energy security.

Therefore, existing policies i.e. disaster risk reduction, water resource management, drought, etc. meant to reduce climate change impacts are an entry point towards adaptation policies and development. Hardoy and Lankao (2020) allude to these climate change responses as the 'greatest opportunities' as they address more than one problem i.e. risks and vulnerability at a time. Dubose and Calland 2011, support the arguments above that economic development, especially in developing countries depend on infrastructure services (sectors

such as energy, water, transport, agriculture and rural development), thus these sectors play a critical role in climate change responses. Since municipalities are the front liners in delivering these services, they are also the first responders to the climate change impacts.

A few studies have evaluated climate change in local development plans. Such studies have aimed to gauge whether local governments take climate change seriously. Geneletti and Zardo (2015) developed and applied a framework that assesses the treatment of climate change adaptation and mitigation in local government development plans.

In Australia, the National Climate Change Adaptation Framework stresses the importance of vulnerability, disaster risks, and adaptation measures for local government. Planning responses for municipalities include infrastructure and disaster plans such as building codes to reduce housing contribution to the heat island effect and provision for sea level rise.

Deri 2011 argues that, ideally, the adaptation plan should cover all services the local government offers. Thus, climate change preparedness becomes effective when integrated into existing local development plans. Deri proposes a five-step approach to climate change adaptation: set goals and objectives; identify current and future risks and vulnerabilities; identify and prioritise options; implement selected responses and review the adaptation process and adjust it accordingly. One Sustainable Investment, Sustainable Energy Africa, and Adelphi (2009) study state that local climate actions would be key for South Africa to meet the NDC targets.

While delivery of crucial services remains a key priority of local government in South Africa, the climate change response, such as energy efficiency and renewable energy, become viable when they correspond with government interests. Thus, the LGCCSP with its main objective to assist provinces and municipalities in mainstreaming climate change into their plans, project development, and financing (DEFF & SALGA, 2019). In terms of the LGCCSP progress, Reddy et al. (2021) noted that at the early stages of the programme, provinces and municipalities are notably more aware of climate change issues and appropriate response actions, yet it is not clear how many local municipalities have formulated climate response strategies and whether these have been integrated into IDPs. Climate action is indeed still primarily viewed as a task for environmental departments and in terms of financing climate change, response is mainly seen as an unfunded mandate and not prioritised by local decision-makers.

Reddy et al. (2019) argue that while the country is aware of the negative impacts of climate change, South Africa's adaptation policies are lagging compared to mitigation policies. A case in point was the droughts in the Eastern and Western Cape, where the City of Cape Town came close to experiencing 'day zero.' Rodina (2019) argues that in the face of a 'water crisis/day zero' in the province, water resilience has become a priority, and the City narrowly escaped the crisis through a combination of measures including water cuts, water transfers from the agricultural sector, emergency preparedness, and eventually the rain that occurred.

Rodina (2019) is of the view that some key lessons should be noted and taken into account with the water crisis that happened in the City of Cape Town. These lessons included the unpreparedness of various municipal departments due to unpredictable water variability; the need for alternative water supply sources i.e. water reuse, groundwater, and stormwater which it has considered after the crisis an indication of the preplanning measures to be in place to cater for such uncertainties.

As alluded to above, South Africa has committed to reducing GHG emissions by over 40 per cent in 2025. Even so, the Climate Action Tracker (2021) regards the NDC target as inefficient. South Africa is ranked the highest GHG emitter on the African continent and the 14th highest emitter globally (Global Carbon Project, 2016). For South Africa to meet its NDC as per the Paris Agreement, while addressing challenges of poverty eradication, unemployment, and inequality, local climate change actions are crucial (One World Sustainable Investments, Sustainable Energy Africa, and Adelphi, 2018).

According to the C40 report¹³ (2019) 97 per cent of C40 cities already experience the impacts of climate change. As such, cities have started transitioning towards low emissions and resiliency to clean energy, buildings, transport, waste, and other critical factors (C40, 2019). The report also highlights the need for cities to assess the success of climate change adaptations through monitoring and evaluating the plans. Cities around the world, of which South Africa is a member, have committed to half the emissions by 2030 and reach zero emissions by 2050.

As such, city mayors have become committed champions of the Paris Agreement (limit temperature increase to 1.5°C). In this context, local government has contributed to delivering innovative climate change projects, plans, and policies to fulfil the Paris Agreement's mandate and the United Nations Sustainable Development Goals. It is a condition that all member cities of the C40 network need to develop and implement climate change action, this being an integrated and inclusive plan that addresses emissions and adapts to the impacts of climate change, and delivers on green socioeconomic and environmental benefits for the community at large.

In line with the arguments above, the National Development Plan (2010), is quite emphatic on the impacts of climate change and the need for the nation to address the impacts so as to be able to transition to a climate change resilient and low carbon economy. These measures include, among other things, the need for coordinated planning and investment in infrastructure services that takes into account climate change measures; implementation of mitigation and adaptation strategies that are in line with national development strategies; the need for the National Treasury, together with the Department of Environmental Affairs, Forestry and Fisheries and the SALGA, to develop and implement indicators for local government that will inform fiscal allocations and capacity building for climate change; creation of a policy and regulatory framework for land use management to determine the socio-environmental costs of new developments and for South Africa to reduce its carbon emissions to be in line with international standards through managing investment in local and regional renewable energy sources.

Thus, the LGCCS P (2019) states municipalities can address climate change response within their primary mandatory sectors. Such as repair and maintenance of water pipe infrastructure (reduce non-revenue water losses), wastewater treatment (water reuse from effluent as well generation of electricity), sustainable urban drainage system (slow down water flow and recapture water for reuse), an indication that climate change projects are multifaceted and require multi-pronged approach from various sector departments.

Similar to the arguments above, The FFC in its 2013/14 Annual Submission for the Division of Revenue¹⁴, made several recommendations with regard to the impact of climate change in rural areas in terms of mitigation and adaptation measures, such as the need for: COGTA to adjust the objectives, terms, conditions, and procedures of the municipal infrastructure grant (MIG) to permit municipalities to use grant funds for climate adaptation and mitigation investments that involve creating, rehabilitating, or modifying municipal infrastructure and, ensure that these investments prioritise and directly address the vulnerabilities poor households face.

Further, COGTA should require municipalities to incorporate in their IDP's plans disaster risk reductions strategies and measures through the development and enforcement of land use planning to reduce infrastructure built on seismic fault lines in coastal regions subject to storm drainage and river shorelines subject to frequent floods. However, based on the IDP reviews provided in the section below section, climate change policies and impacts are being partially addressed in the IDPs of various municipalities, including budgeting thereof.

Country Case Studies- Climate Change Plans/ Mainstreaming

¹³The C40 membership network is a group of cities that earn their membership by addressing climate change impacts in their respective cities. Johannesburg, Cape Town and the Tshwane are part of the network group.

¹⁴2013/14 FFC Annual Division of Revenue- 'Alternative Financing Mechanisms on Disasters' and 'Addressing the Impacts of Climate Change in Rural Areas'

Recent scientific literature has shown a growing inclusion of climate change in local government development plans. Various countries worldwide have integrated climate change responses in their planning documents. Table 4.2 below summarises the findings of various country case studies on local climate change response. The results indicate that most municipalities are aware of climate change and its impact and develop climate change responses, but fail to integrate these with plans, implementation, funding, or even monitoring and evaluation of climate activities. In some instances, the failure to implement vary and include difficulty in understanding the concept of climate change science, technical skills and capacity, and funding.

Table 4.2: Country Case Studies on Local Climate Change Responses

Country & Author	Findings
Australia; Baker et al., (2012)	An evaluation of local government climate change adaptation planning in Southeast Queensland, Australia found that local governments are aware of the potential impact of climate change but are not generating locally contextualized relevant adaptation plans. The study cautions against evolving climate adaptation planning for local governments without tackling the structural, procedural, and contextual barriers.
USA; Nordgren et al., (2016)	<p>This study acknowledges that local governments are on the front line of efforts to address climate-related impacts. However, there is limited knowledge of the resources needed to address the consequences. The study's findings show that local practitioners conduct vulnerability assessments and develop adaptation plans but fail to implement, fund, monitor, and evaluate the activities. The study recommends that local officials streamline activities to effectively and efficiently access the resources required to build a resilient local economy. Nordgren et al. (2016), list five steps toward climate adaptation: 1) identifying and assessing vulnerabilities/ risks; 2) planning; 3) implementing strategies; 4) monitoring and evaluating; and 5) revising and sharing lessons learned.</p> <p>In the USA, research was conducted on local government integration of climate change into their development plans. The study's results indicated that 60per cent of US respondents were within the adaptation cycle, with 24per cent just beginning to initiate their adaptation process, 27per cent in the vulnerability analysis or planning stages, and 9per cent in the implementation stage.</p> <p>These results indicate that adaptation levels have started with communities initiating efforts to prepare for climate-related impacts. Nordgren et al. (2016) also list reasons to slow adaptation measures and actions as: difficulty in understanding climate science, lack of human and financial resources, and capacity. However, primary motivators for adaptation to succeed are political leadership, knowledge of projected future climate impacts, and community support for adaptation measures, while available funding is the most negligible factor.</p>
Denmark, Damsø et al., 2015	In Denmark, local climate action plans are widely adopted at the local government level, except for implementing the target set and sectoral coverage. They recommended the need for national and local practitioners to share a mutual approach to an integrated planning system and its benefits, especially for local government.
India, Malaysia and Indonesia; Gouldson et al., (2015)	The cities are faced with pressing priorities and limited resources and capacity. However, the fight against climate change to be effective requires low carbon measures, (such as building energy efficiency and renewable resources) as they have socio economic and environmental benefits. However, for these measures to work effectively, depend on governance conditions, with support from multilevel governance (international, national, regional, and local institutions), including coordination between the multiple-level governance on climate change integration on sectoral policies and priorities to collectively reduce the impacts of climate change.

<p>China, Li & Song, (2015)</p>	<p>An overview of local and regional climate change plans (mitigation and adaptation) in China was assessed; in 16 cities, four autonomous regions, and 22 provinces; using a detailed evaluation framework/content analysis described by the International Council for Local Environmental based on five climate change plans/components: (fact base; vision, goals, and targets; policy actions and strategies; implementation strategies; monitoring and review). Findings of the study showed that: many of the plans are similar in content, without evidence of local innovation; most of the plans have a comprehensive awareness of climate change impacts, but fail to assess local vulnerability and mitigation/adaptation capabilities; sector-specific baseline inventories and forecasts are rarely present in either provincial or municipal plans; implementation strategies and follow-up monitoring/evaluation progress are lacking.</p> <p>What has also been noted in the study was that the planning interventions cover a wide range of strategies, that include changes in the built environment (e.g. land use, transportation, buildings), natural environment (e.g. water, agriculture, carbon sinks), economic sector (e.g. industry) and people's behavior (e.g. lifestyle shifts). The study recommended the need for: detailed guidelines for developing subnational climate change plans with long-term, clarified, and standardised goals to improve the quality and consistency of provincial and municipal plans; both climate change mitigation and adaptation toolkits are needed as guidance for Chinese jurisdictions; due to varying socioeconomic and urbanisation stages of different jurisdictions in China, local jurisdictions require more innovative policies, strategies, and tools that reflect local geographic and socioeconomic realities to better mitigate and adapt to climate change. Mitigation and adaptation policies and actions should be integrated with concerns about the risks of maladaptation and identifying potential synergies.</p>
<p>Tanzania, Semdoe et al., (2015)</p>	<p>Dar es Salaam, Tanzania's largest city and former capital, comprises three municipalities (Ilala, Kindononi, and Temeke), with Dar es Salaam City Council as an overarching strategic local authority for the metropolis. In the Tanzanian context, climate change issues are addressed mainly at the national level, while coping with its impacts, such as flooding and drought, is left to local communities or individuals at the local government level. The city level is the central nexus for local climate change adaptation by being the point at which community-based adaptation options may be linked to the available financial resources. What was observed as a challenge in the case of cities like Dar es Salaam is that most of the existing plans mention climate change action/adoption (CCA) and climate change mitigation (CCM) in passing without adequately mainstreaming the issues or specifying mechanisms for addressing them. Although various climate change sector-related policies address climate change mostly indirectly, policies and programmes for addressing current vulnerability and promoting CCA at the city level are limited. Similarly, mainstreaming of CCA concerns in development plans, strategies, programmes, projects, and routine activities has yet to be done. Assessment of local authority technical cadres' awareness of the existing legislation and policies was undertaken concerning selected policies and laws.</p>
<p>South Africa: Lethoko, (2016)</p>	<p>The study investigated the inclusion of climate change adaptation and mitigation strategies in IDPs in the seven vulnerable municipalities in the Limpopo Province of South Africa. Several challenges that these municipalities were experiencing in addressing climate change surfaced. Amongst such challenges are: the low local human capacity to undertake this kind of planning; limited knowledge and understanding of climate issues at the local level; limited financial resources, and competing resources, which often result in medium- to long-term planning being side-lined; projects that do not fit into the short political life of decision makers are not implemented.</p>

4.5.2 Budget Responsiveness to Climate Change

The World Bank Climate Change Action Plan of 2021-25 advocates for countries to integrate climate change strategies to transition to a resilient, inclusive development and green economy. To do that, finance ministers should incorporate climate change response strategies into financial reporting. Audit institutions are taking centre stage in assessing compliance of government priority programs with climate-related objectives (Coalition of Finance Ministers for Climate Action, 2022).

In line with the Coalition of Finance Ministers for Climate Action to accelerate climate change through budgeting, the UNDP (2021) report on 'Budgeting For Climate Change' argues that the role of Finance Ministries is critical in translating strategies into plans by integrating climate actions into budgeting planning. Success to countries who had integrated climate change response into their budget process has been attributable to Finance Ministries being at forefront and playing a critical in ensuring that budgets responds and are align

with climate actions (UNDP 2021, Coalition of Finance Ministers for climate Action 2022), including effective participation of executive leadership (cabinet) in ensuring through its oversight role that budgets are reflective of climate change response.

Climate integration into budget process requires among other things; climate budget information in budget circulars, climate change response on existing expenditures, climate change funding sources. (UNDP, 2021). The World Bank (2014) report on 'Moving towards climate budgeting' support the arguments above that development strategies in climate action are likely fail to translate into effective plans if ministries of finance are not playing an active role in integrating climate change response into medium to long term budget planning which occurred in countries such as Ethiopia, Rwanda, Vietnam and Cambodia.

The World Bank (2014) proposes three financial and expenditure management areas that the ministries of finance should focus on in order to be able to address fiscal implications of climate change. These are (i). inclusion of climate change as a long-term national budget and expenditure framework so as to allow climate expenditure planning and adjustment in resource allocations over a period of time to the implementing agencies. (ii). Improving financial tracking and performance accountability by spending Agencies, this can be done through mandating implementing agencies to develop and document climate actions and plans while also reporting on climate related investments and expenditures. (iii). Increased capability of government financial management systems on effective use of external climate finance sources, whereby finance ministries need to have a consistent financial reporting (included in budgets and financial reporting) so that externally funded climate expenditures are captured.

Thus, countries worldwide have also developed and applied green budgeting tools. Green budgeting uses budgetary policymaking tools to achieve green objectives, that is, the climate and environmental goals (OECD, 2021). Green budgeting is not new; instead, it builds on the already existing public finance management framework of respective countries where climate and environmental goals are integrated. It does not change the country's existing policies and public finance management. Instead, it allows policymakers to feature green or climate change dimensions into the existing policies and budget decisions through the budget cycle (Gonguet et al., 2021), in line with the Paris Collaborative on Green Budgeting (PCGB).

The PCGB developed practical tools and guidelines on how governments can integrate climate change and environmental goals within the budgetary framework (OECD 2021). Four building blocks underpin green budgeting; see figure 4.2 below: (i) effective strategic framework, (ii) evidence generation and policy coherence, (iii) reporting to foster accountability and transparency, as well as (iv) enabling budgetary framework (OECD 2021; Gonguet et al., 2021).

According to Gorelick et al. (2022), city budgets can play a significant role in delivering climate change action response by integrating adaption and resilience into the city's budget, boosting GDP through the reduction of depreciation of assets, while mitigation measures result in costs savings through increased energy efficiency and stimulation of green financial services.

Green budgeting is a strategically helpful tool in delivering climate action response at a municipal level. This can be done by identifying priority sectors and projects for municipal climate action, such as access to clean water and resilient housing; integrating climate targets into long-term green investment plans and budgets in transport, building construction and retrofits, and renewable energy. Implementation of green public procurement at all stages of procurement of municipal goods and services fosters sustainability and innovation in various sectors of the economy i.e. transport and construction sectors. Green budgets allow opportunities for green financial instruments such as incentives or taxes for household renewable energy installations or building retrofits.



Figure 4.2: Green Budgeting Building Blocks



Source (OECD, 2021; Gonguert et al., 2021).

Goel (2017) argues that climate change-responsive budgeting is in line with the 2015 Paris Agreement, which underscores the management of climate change finance through transparency and accountability measures using budget policy documents. Climate change budgeting statements obligate public finances to implement climate change responses to reduce the impacts through mitigation and adapt by improving resilience measures through the various programmes. Various countries have started endorsing climate change / responsive budgeting by introducing accounting systems or budget tagging within their systems; see Table 4.3 below.

Table 4.3: Country Case Studies on Climate Change Responsive Budgeting (CCRB)

India

India ratified the Paris Agreement on climate change in 2015, with the implementation period starting in 2020, by integrating climate change into budgeting. Both the international agreements emphasised greater transparency and accountability of the national government for financing climate change interventions. There were some shortcomings in implementing the climate change responsive budgeting in India. A lack of monitoring and reporting made the CCRB redundant, and lack of coordination by the Ministry of Finance influenced expenditure patterns.

Nepal

In 2012, Nepal incorporated the climate tag into the budget system at the programme level, classifying expenditures by the level of climate relevance.

Bangladesh

The Government of Bangladesh adopted a Climate Fiscal Framework (CFF) in 2014, which proposes a climate expenditure tracking framework (CETF) to be applied to all line ministries' budget submissions and tag on budget.

Indonesia

Indonesia implemented a climate public expenditures review (CPEP) in 2014 and a climate budget tagging (CBT) in Central Java, Yogyakarta, and Jambi Provinces. These tools enabled uniformity of budget items within, and between, cities and for the state to prioritise fiscal transfers.

Source: Gorelick et al. 2022; Goel 2017

In support of the above arguments, the C40 report (2020), states that climate budget has been used by countries across the globe as a measure to achieve the Paris Agreement, where a climate budget has been defined as a governance tool used to reduce emissions and other climate targets. Climate budget strength is through directly integrating the budget into the municipal budget and in turn the process becomes the same as other budget processes of the municipality.

Thus, the C40 report proposed four steps to the climate budget process: (i) The climate budget process should be owned by a financial officer with a working group of finance and climate environment representatives, demarcation of municipal geographical area with climate targets set, and integration of climate budget into the financial budget process of the municipality. (ii) Draw climate change measures and calculate their effects such as mapping the emission's biggest sectors and their source, setting emission targets, calculate measures proposed, develop indicators, and aggregate impacts of the impacts to the climate budget and analysing. (iii) Prepare a climate budget (presentation of the municipality's climate targets), that is, historical emissions, situational analysis of climate measures, baseline, estimated emissions reductions, existing and proposed climate measures, and the description of financing and responsibility for implementing climate measures. (iv) Report and follow up on climate change measures, that is, are measures being implemented as planned? Is there a change? And evaluate the climate budget using information reported on, which needs to form the basis for preparing for next year's climate budget.

In the South African context, the National Treasury report on Financing a Sustainable Economy on Environment (2021) highlighted the need for the mobilisation of resources with a clear financing framework to realise the 2015 Paris Agreement and South Africa's NDC of limiting rising temperatures to 1.5°C. In this context, the 2021 climate budget tagging was introduced in the technical guidelines of the 2021 MTEF.

Climate change budget tagging is about integrating climate change into the budget process to understand and improve resource allocation efficiency and is a necessary step toward meeting South Africa's long-term climate change goals. National Treasury has undertaken an exercise of tagging climate-related expenditure to identify, classify, weigh and codify ("mark or tag") climate-related expenditure in the government budget system to enable the estimation, monitoring, and tracking of that expenditure. Tagging climate-related expenditure lines is a valuable starting point for understanding whether spending is aligned with needs, given

climate risks and vulnerabilities facing the different sectors and parts of society.

At the local government level, the LGCCSP (2019) report states that while climate change funding can be complex, as an entry point funding should be sourced within the existing funding sources (intergovernmental grants, rates and taxes) as well as procurement policies before external funding can be solicited. Appendix 1 lists the type of financing mechanisms and practical examples that municipalities can use within their existing funding sources.

4.6 RESULTS

This section reviews the IDPs of municipalities with respect to mainstreaming climate change in their planning and policy documents. Further, a budget analysis tool assesses whether municipal budgets are responsive to climate change/climate sensitivity.

4.6.1 Climate Change Integration: IDP Analysis

As noted in the methodology section, the IDPs of a sample of municipalities were examined by three independent researchers for their responsiveness to climate change imperatives. Each researcher graded each of the five components of the IDPs i.e. situational analysis, vision and objectives, actions, implementation, and prioritisation, for any articulation that indicates climate change is taken seriously in each Municipality.

The results are shown in Table 4.4 below and suggest that the treatment of climate change varies by province, municipality size, and whether urban or rural. The City of Cape Town, City of Tshwane, Buffalo City and the Ethekwini City (the metros) with total scores of 15 and 14, perform well relative to other municipalities (see Figure 4.3). Urban municipalities scoring relatively well included King Sabata Dalindyebo, RandWest and KwaDukuza. Saldanha Bay scored very low despite being a large town. On the lower extreme is Matzikama, one of the small towns/ municipalities. Other rural municipalities scoring very low on climate responsiveness are Nyandeni and Umzimvubu. On average, municipalities in KZN and Gauteng scored fairly well, followed by Eastern and Western Cape.

Table 4.4: IDP Municipal Scoring

Municipality	Situational Analysis	Vision and Objectives	Actions	Implementation	Prioritisation
City of Cape Town	3	3	3	3	3
Matzikama	1	1	1	0	0
Saldanha Bay	2	1	1	1	1
Laingsburg	3	3	3	2	2
Buffalo City	3	3	3	2	3
Nyandeni	2	2	2	2	2
King Sabata Dalindyebo	3	3	3	2	2
Umzimvubu	3	2	2	2	2
City of Tshwane	3	3	3	2	3
Midvaal	3	2	3	2	2
RandWest City	3	3	2	3	2
Ethekwini City	3	3	3	2	3
Msunduzi	3	3	3	2	2
Mthonjaneni	3	3	3	2	3
KwaDukuza	3	3	3	2	3

Figure 4.3: Total Scoring on Climate Change Responsiveness

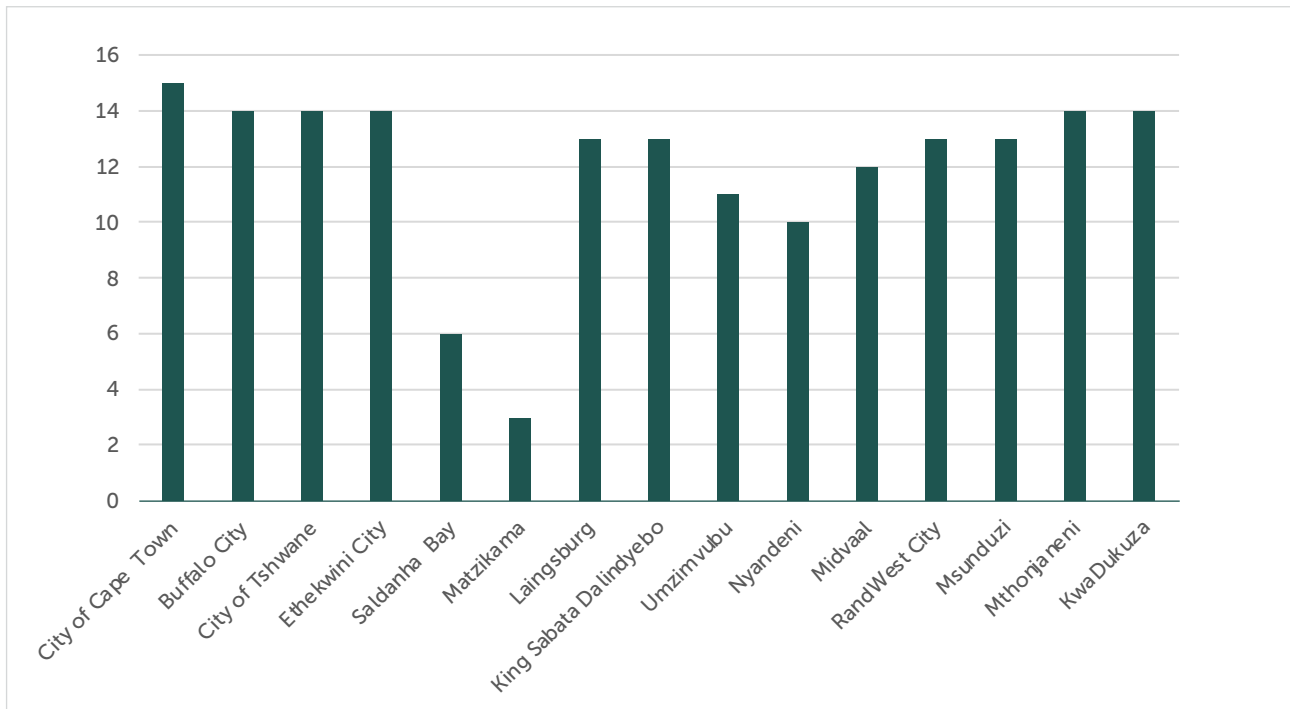


Figure 4.4 below shows the scores by the IDP components and each municipality, respectively. It is clear from Figure 4.4 that most municipalities, except Matzikama and Saldanha Bay, articulate climate change in their situational analysis well. The question is whether municipalities translate what they articulate in the situational analysis into actionable and implementable plans or prioritise the climate change action points. Figure 4.4 also shows that most municipalities have significant gaps in actions, implementation, and prioritisation on climate change response. These municipalities understand that climate change is an issue but translating that understanding into actionable and implementable strategies is inadequate.

Figure 4.4: Municipal Climate Change Response Scores: IDP Components

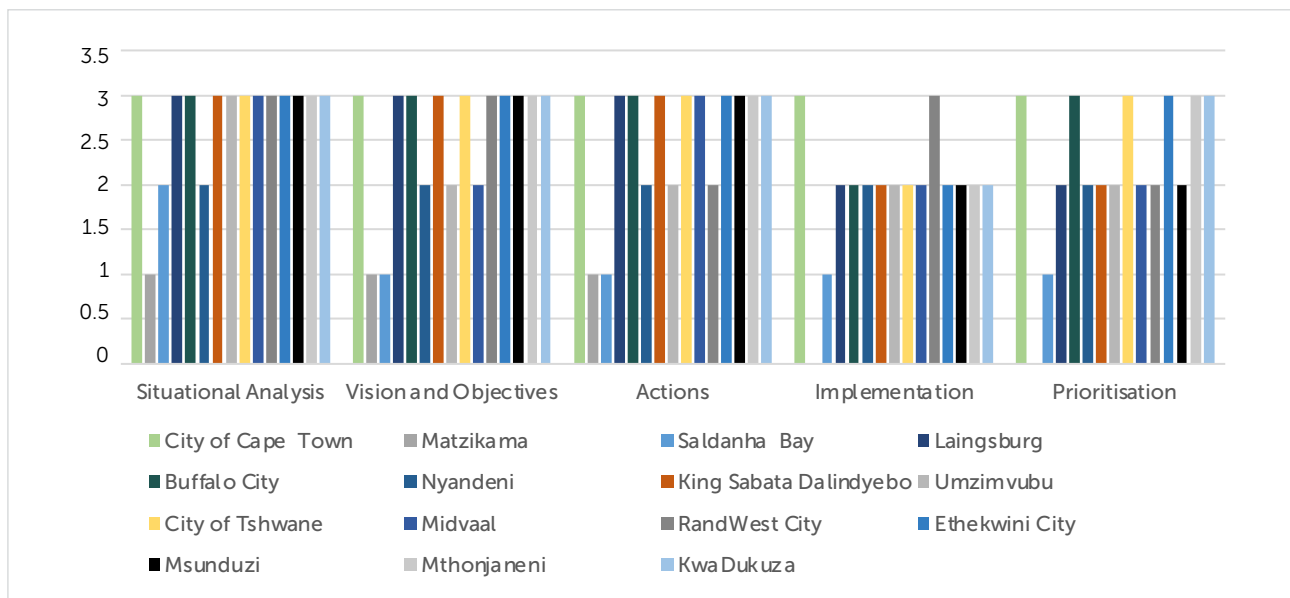
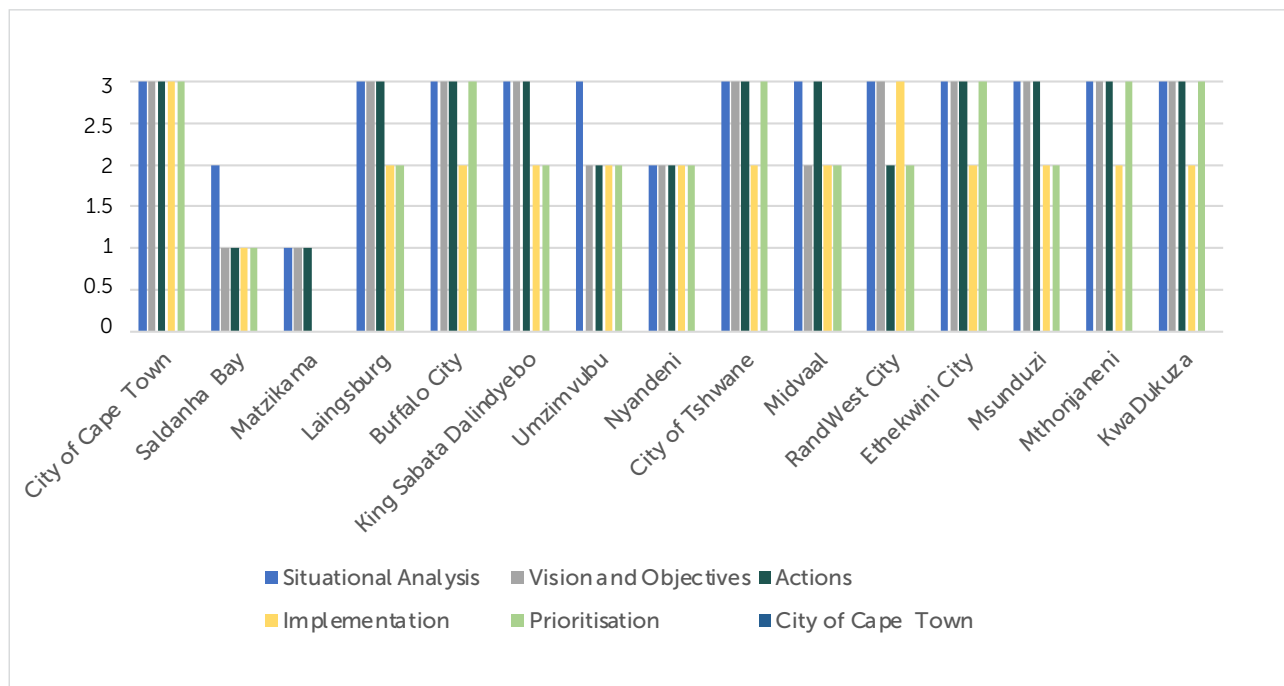


Figure 4.5 shows IDP scores on climate change in the respective municipalities selected for analysis. Municipalities regarded as small and rural (such as Matzikama, Saldanha Bay, and Nyandeni) scored very low on the municipal components listed (vision and objectives, actions, implementation, and prioritisation on climate change response). Some of the reasons are that these municipalities do not see climate change

as a priority; have not developed climate change plans; they rely on the metros/secondary city to conduct assessments on their behalf; and do not see climate change response strategies as their responsibility.

In the case of the metros, secondary cities, and large towns, results demonstrated in their status quo analysis, vision, and actions indicate that these municipalities are aware of climate change measures and have strategies for climate resilience. However, on implementation and priorities, there are glaring gaps in implementing the strategy set or in making climate change a priority. Some of the reasons for this are attributable to lack of skills, plans that need to be approved by the council, follow-up measures/ evaluation of existing plans, as well as dedicated units responsible for climate change.

Figure 4.5: Municipal Climate Change: IDP Scores by Municipality



4.6.2 Case Study Analysis: IDP Analysis

Appendix 2 shows a detailed IDP analysis of the municipalities selected in each province. In summary, the case study results indicate varied climate change responses by municipalities. That is, small and rural municipalities lack implementation and prioritisation due to municipalities referring to climate change response as the function of the district municipalities and in some instances these municipalities do not have plans and strategies in place, among other reasons. While for secondary and large cities, the lack of implementation and prioritisation is attributable to these plans waiting for council approval, whilst there is lack of capacity in implementation. Generally, municipal response to climate change by these municipalities has been reactionary, however due to disaster risks that have occurred recently, municipalities have started to plan for climate change measures.

4.6.3 Budget Analysis: Climate Change

The municipalities' budgets were reviewed as part of the case study. This was done by taking total expenditure of the municipality's programmes versus the expenditure on 'Environmental Protection Programme'. Table 4.5 illustrates the expenditure of each municipality for environmental protection, against the overall expenditure on municipal programmes. It is evident from the table that several of these municipalities do not set aside any funding for this purpose, and those that set aside an insignificant amount compared to their total expenditure. The various municipalities' budgets that form part of the study allocated less than 1 per cent of these budgets for environmental protection.

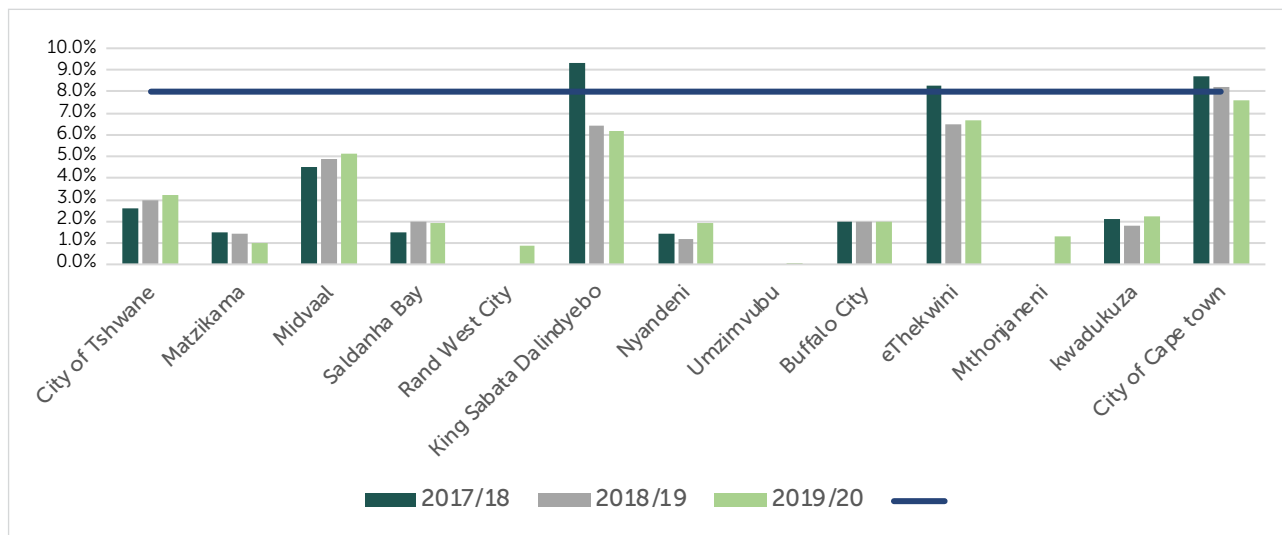
Table 4.5: Total Municipal Expenditure as a per cent of Municipal Environmental Protection Expenditure

Municipalities	Expenditure By Functional Allocation	2019/2020	2020/21	2021/22
		R'000	R'000	R'000
City of Cape Town	Environmental Protection	188317	243088	239495
	Total expenditure	40118985	44525829	48446971
	Percentage	0,47%	0,55%	0,49%
Saldahna bay	Environmental Protection	3502	4264	4396
	Total expenditure	1087726	1224284	1277131
	Percentage	0,32%	0,35%	0,34%
Ethekwini	Environmental Protection	255435	269652	286071
	Total expenditure	40664331	40121896	43420119
	Percentage	0,63%	0,67%	0,66%
Kwadukuza	Environmental Protection	n/a	n/a	n/a
	Total expenditure			
	Percentage			
Laingsburg	Environmental Protection	n/a	n/a	n/a
	Total expenditure			
	Percentage			
King Sabata Dalindyebo	Environmental Protection	4462	4806	3575
	Total expenditure	1363609	1466007	1425065
	Percentage	0,33%	0,33%	0,25%
Nyandeni	Environmental Protection	0	0	0
	Total expenditure	0	0	0
	Percentage	0%	0%	0%
Midvaal	Environmental Protection	3256	4141	4424
	Total expenditure	1147283	1311848	1419374
	Percentage	0,28%	0,32%	0,31%
Msunduzi	Environmental Protection	20433	24865	25875
	Total expenditure	5566649	5673151	6424262
	Percentage	0,37%	0,44%	0,40%
Rand west city	Environmental Protection	29860	0	0
	Total expenditure	2173666	0	0
	Percentage	1,37%		
Mthonjaneni	Environmental Protection	0	0	0
	Total expenditure	0	0	0
	Percentage			
Matzikama	Environmental Protection	0	0	0
	Total expenditure	0	0	0
	Percentage			
Buffalo City	Environmental Protection	27218	30110	0
	Total expenditure	7 725 037	7751280	8231745
	Percentage	0,35%	0,39%	
City of Tshwane	Environmental Protection	205775	242 984	205 123
	Total expenditure	37 454 040	37 461 146	39 140 052
	Percentage	0,55%	0,65%	0,52%
Umzimvubu	Environmental Protection	n/a	n/a	n/a
	Total expenditure			
	Percentage			

4.6.4 Repairs and maintenance

According to National Treasury's circular 71 (National Treasury, 2021), municipalities are advised to spend at least 8 per cent on repairs and maintenance infrastructure. The figure below shows the repairs and maintenance ratio for the respective municipalities. Figure 4.6 shows that the municipalities are spending significantly less than the required 8 per cent (less than the required norm) on infrastructure repairs and maintenance, with the exception of the King Sabata Dalindyebo municipality, that spent 9 per cent in 2017/18. All other municipalities have ratios below the 8 per cent norm, indicating that municipalities are underspending on repairs and maintenance.

Figure 4.6: Repairs & Maintenance



Source: own compilation based on National Treasury (2021)

Delayed maintenance can result in infrastructure breakdowns, service disruptions, substandard services, and service delivery failure. According to the FFC (2013), South African municipalities lose about 30 per cent of water annually, and the burden of climate change can exacerbate this. As such, and as part of climate change adaptation and mitigation and to proactively deal with the consequences of climate change, it is important that mechanisms and adequate budgets need to be put in place to minimise incidences of poor maintenance, especially for water-related infrastructure (FFC, 2013).

Routine maintenance assists in preserving the useful life of infrastructure. The rising backlog in the maintenance needed to keep infrastructure operational has resulted in the dilapidation of infrastructure assets in many municipalities, that has led to significant municipal electricity and water distribution losses (National Treasury, 2021). Thus, proper maintenance of infrastructure does play a significant role in addressing climate change impacts. According to the United Nations Office for Project Services (UNOPS) (2021) report on 'infrastructure for climate action' infrastructure is responsible for 79 per cent of total GHG emissions and 88 per cent of adaptation costs.

Yet, infrastructure provides developmental benefits through the services it provides such as water and energy to communities, transport services as well as management of waste services. Thus, to accelerate sustainable climate actions existing infrastructure, the UN Environment (2022) report calls for the need to take stock of the existing infrastructure performance across various sectors of the economy (energy, waste and sanitation, buildings, transport) and incorporate climate resilient/infrastructure through among others renewable energy, treat wastewater for reuse and energy).

4.7 CONCLUSION

South Africa has made various international and national commitments with respect to climate change. As such, various legislation, policies, and institutional frameworks have been put in place. However, translating various climate change initiatives and targets remain very weak for a variety of reasons. The literature and case study analysis indicate that municipalities are aware of climate change and its impacts and need to develop climate change responses, but fail to integrate these within their plans, as well as to implement, fund, or even monitor and evaluate climate activities.

In some instances, the failure to implement vary and include difficulty in understanding the concept of climate change science, technical skills and capacity, and funding case in point in the case study analysis on the IDP scores indicates glaring gaps in actioning, implementing and prioritising climate change response by municipalities. Some of the reasons for this are a lack of skills, plans that need to be approved by the council, follow-up measures/ evaluation of existing plans, and dedicated units responsible for climate change. Also, what was found was that municipal response to climate change by these municipalities have been reactionary, while there is general lack of coordination on climate change actions and measures. Budget analysis was reviewed to assess whether municipalities budget for climate change responses. The results of the budget analysis reviewed showed that those municipalities that have a budget on climate change response do set aside a budget for climate action responses; however, the budget is an insignificant amount (1 per cent) compared to the total overall expenditure budget of the municipalities. Likewise, with repairs and maintenance on infrastructure, it was found that municipalities spent less than the eight per cent required amount. Yet, the literature points out that proper infrastructure maintenance plays a significant role in addressing climate change impacts by investing in climate-resilient infrastructure in sectors such as energy-renewable energy and water-wastewater treatment for reuse.

4.8 RECOMMENDATIONS

The Commission recommends the following:

1. *The Minister of Finance should create an enabling framework to ensure government budgets are climate sensitive and incorporate green budgeting measures across budget cycles, budget circulars, the MTEF, as well as MFMA and PFMA processes. Climate change indicators and targets should inform this process*

Findings show that where climate responses have had a meaningful impact, Ministers of Finance have been at the forefront and played a pivotal role in integrating climate change responses in their budget processes and financial reporting. Climate change-responsive and green budgeting is in line with the 2015 Paris Agreement, which underscores the management of climate change finance through transparency and accountability measures using budget policy documents.

2. *The NDFF&E and COGTA should spearhead integration, coordination, and implementation of climate change responses so that it is in line with the national agenda on transitioning to a low carbon and resilient economy. The DPME and the PCC must monitor, evaluate and report on the progress made by subnational governments in integrating climate change responses in their respective planning documents. Committees at the legislatures and municipal councils should exercise their oversight role by ensuring that integration, coordination, and implementation of climate change responses take effect.*

In an effort to assist municipalities with mainstreaming climate change into key municipal planning documents, there are various supporting tools, structures, and institutions in place. An example is the 2011 'Lets Respond Tool Kit' developed and published by the NDFF&E and COGTA, to assist municipalities

in gradually integrating climate change risks and opportunities into integrated development plans (IDPs). Additionally, the 'Local Government Climate Change Support Programme' (2019,) developed by the NDFE and SALGA is a supporting programme dedicated to advance local climate change planning and implementation capacity in order to be able to build climate resilience at the municipal level. Therefore, these supporting structures and the respective departments mentioned should be at the forefront in assessing the integration, coordination, and implementation of climate change responses with respect to municipalities. At the same time the DPME and PCC should collaboratively monitor, evaluate and report on progress made against targets set so as to be able to transition to a low carbon and resilient economy that is environmentally sustainable as per the national agenda with respective committees in the legislatures and councils exercising their oversight role.

3. *National Treasury, together with COGTA and the DPW&I, should, as a starting point, revise formats for the infrastructure grant frameworks to include climate change response specifications so as to be able to gradually achieve climate resilient infrastructure, with a strategic approach in the medium to long term of incorporating climate change mitigation and adaptation measures to all infrastructure related projects.*

Mainstreaming climate change responses on infrastructure provides an opportunity for climate resilient infrastructure, improved efficiency and service delivery standards. The current scenario is one where municipalities underspend on repairs and maintenance of infrastructure, which generally increases vulnerability to climate risks and suboptimal delivery of services. The literature points out that proper infrastructure maintenance plays a significant role in addressing climate change impacts and in realising mitigation and adaptation targets by investing in climate-resilient infrastructure in various sectors of the economy (such as energy/renewable energy and water/wastewater treatment for reuse)

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Appendix 1: Local Government Types of Financing Mechanisms

Type of Finance	Type of Finance Examples	Type of Finance Mechanisms for Local Climate Action	Benefits	Barriers
Intergovernmental Grants	Equitable share & Municipal Infrastructure Grant	Municipalities can be proactive through using grants for climate action (i.e. Policies, by-laws and sustainable public procurement of infrastructure for service delivery using grants)	More systematic and widespread inclusion of climate change. No restriction on municipalities including climate change considerations in projects designed for these grants	Grants are mainly directed to capital expenditure, but this is changing to include operational considerations too. Climate change is a cross-cutting issue, but grants are still sector specific. Training may be required.
Municipal rates (tariffs and taxes)	Property rates, sale of water and electricity, development contributions, sale of sewerage and waste collection services)	Reductions or deductions can be offered as a reward for adhering to climate appropriate development and behaviour decisions, such as installing energy efficiency or generation. Increases can be used to penalise development decisions and behaviour choices that are not appropriate in response to climate change, such as increasing the cost of a unit of energy or water as more is consumed so that higher users pay more per unit than lower users of resources.	Within the municipal council's control. With good revenue collection, the increased revenue collected can be utilised to fund larger climate action and municipal service delivery projects. No significant capital outlay is required.	Consider possible economic impacts of a deduction or increase in rates. Must not impact negatively on lower income families and households. Build broad political support from citizens.
Sustainable public procurement	A process whereby organisations meet their needs for goods, services, works, and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment"	Climate change considerations, such as resource efficiency and carbon emissions associated with the production and operation of what is procured, can be included in the technical specifications, functionality, eligibility criteria and/or the contract conditions for goods, construction or services.	Within the control of the municipality to implement. There are known solutions for climate mitigation that can already be included in procurement decisions, such as energy efficiency technologies. Co-benefits can be realised such as increased operational cost saving when considering resource efficiency interventions.	Need to overcome the perceptions of increased cost and that this is not required by legislation. When doing this for the first time, may take longer than simply following business-as-usual or taking the same approach as previously done. Data on local climate impacts are needed to make informed decisions.
Public International funding	National governments of countries (taxes) across the world who have designated funds for climate action.	Increasingly, national governments that release international public funding through these agencies are including climate change criteria as a minimum compliance criteria and/or developing specific funds for climate action.	The grant funding and concessional loans available should assist in reducing the cost of implementing climate action. Grants do not need to be paid back and can therefore be used for projects where there is little to no direct return on investment, such as capacity building, strategy and policy development, financial and technical feasibility studies, etc.	Preparing projects can be expensive. Grant funding is associated with reporting requirements to funders that can be burdensome at times. Increasingly, International funds require that grants and concessional loans be used to leverage additional funding, whether from the public or private sector.

Private capital market	Institutional and commercial investors - pension funds, banks, the sale and delivery of private goods and services	Private financiers are increasingly including climate change criteria when evaluating investment opportunities and risk. Going further, many impact investors are specifically looking to invest in projects that derive direct social, environmental and economic benefits, rather than just profit. As technology has improved, climate change mitigation projects now also have a strong business case for investment and demonstrate stronger returns on investment.	Private capital markets have significantly larger resources than the public sector, therefore greater amounts of finance can be leveraged. Private capital markets can provide the necessary upfront capital costs for projects when local governments do not have the resources to do so.	Preparing projects can be expensive. Money received needs to be paid back. The private sector is risk averse and requires guarantees for certainty. Reporting requirements to funders can be burdensome at times.
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Source: GIZ; NDEAFF; SALGA; 2019

Appendix 2: IDP Analysis of Municipalities

Western Cape: Municipalities	Municipal IDP Score
City of Cape Town	The City of Cape Town scored well across all IDP components. This suggests that its IDP articulates climate change issues relatively well regarding mitigation and adaptation. IDP shows that the City has conducted climate change and risk assessment, determining the adaptation measures across the various sectors. The City's adaptation plans include urban cooling and heat responsiveness, water security and drought readiness, water sensitivity, flood readiness, storm management, coastal management, and resilience, as well as managing fire risk and responsiveness. Likewise, with the mitigation strategies, the City details its plans that include zero-emission buildings and precincts, carbon-neutral energy for work creation and economic development, mobility for quality of life and livelihoods, and circular for the waste sector. In terms of actions and strategies, the City of Cape Town has put in place an action plan and taken proactive measures to protect people from the effects of climate change. To supplement and diversify the water supply, the City of Cape Town developed a Critical Water Shortages Disaster Plan (which includes extensive demand management measures) and a New Water Programme in response to unusually low rainfall in 2015, 2016, and 2017.
Matzikama	The Matzikama Local municipality IDPs speak of the water services development plan. However, no mitigation and adaptation strategies talk about climate change responsiveness. Currently, the Municipality has no concrete strategy. Matzikama Local Municipality has been requested to draft a climate change response plan by the provincial department. As such, the Municipal Infrastructure Support Agent (MISA) will assist Matzikama in developing a Climate Change Response Plan to address climate change resilience and integrate the principles in its documents. Measures and action has been implemented towards the water priority, various boreholes have already been sunk in the Matzikama municipal area with various degrees of quality. These boreholes are strategically located to maximize the potential thereof together with the existing and upgrading of water infrastructure. However climate change as a whole does not feature in yet within the priority list of actionable items.
Saldanha bay	The Saldanha bay municipality conducts risk assessments in the area, with the risk of fires identified. Further, it is stated by the Municipality that climate change should be a priority – risk reduction response. Saldanha bay has fewer efforts toward climate responsiveness and lacks strategic policy, adaptation, and mitigation strategies to respond to the threat of climate change. Saldanha Bay is reliant on the West Coast District's climate change policy. Saldanha Bay does not have a climate change policy, but they actively engage in climate mitigation strategies such as air quality forums and the partial biodiversity plan. In its 'situational analysis,' the Municipality demonstrates its awareness of climate change issues and the adaptation and mitigation measures needed. The Saldanha bay municipality conducted a risk assessment in the area, and the risk of Veld fires, Structural Fires, Major Hazardous Installations (MHI's), and social conflicts were identified. However, looking at the IDP (2022), there is little that speaks to climate responsiveness. In its vision and objectives, the municipality strives to encourage climate-friendly practices by local businesses and residents.
Laingsburg	The Laingsburg municipality recognizes climate change. Further, the details of how the Municipality plans to respond to the effects of climate change are incorporated in the Disaster Management Plan (2021), as climate change is considered a disaster. Laingsburg Municipality collaborates with the Central Karoo District Municipality and takes an active role in risk reduction to serve the communities and damage to property, the environment, and infrastructure. Hazards, Risk Identification, Risk Assessment, Risk Reduction, Mitigation Measures, Risk Response, and Recovery are their Disaster Management focal points. Laingsburg LM IDP (2022-2027) recognizes climate change in its situational analysis. However, the details of how the municipality plans to respond to the effects of climate change are incorporated in the Disaster Management Plan (2021) because climate change is considered a disaster. In terms of "action and implementation," a collaboration between the national departments, Central Karoo District Municipality, and Laingsburg Municipality has been established, and an active role in risk reduction to serve the community through Risk Identification, Risk Assessment, Risk Reduction, Mitigation Measures, Risk Response, and Recovery are implemented for disaster management. Municipal disaster management prioritises climate change-related issues, such as a sustainable environment clearly stated.

Eastern Cape: Municipality	Municipal IDP Score
Buffalo City	<p>The city, in its situational analysis, highlights the need to promote an environmentally sustainable city. The city's strategic objectives and vision state the need for green city with focus on environmental management and climate change. Due to climate change impacts, the city developed Climate Change Strategy in 2015, which is due for review. In terms of actions and implementation, climate change mitigation and adaptation measures were developed such as mapping of Coastal Vulnerable areas in 2019 and Climate Risk and Vulnerability Assessment in 2021. It is stated that the development of these measures is to be able to determine the developments for infrastructure while ensuring that climate change is mainstreamed within the city's budget and planning. There is also the Environmental Education and Awareness Strategy which is awaiting Council approval. In terms of disaster management, it is stated that it is not conducted in an integrated and coordinated multisectoral manner. Among other reasons; lack of understanding in funding disaster management activities, insufficient budget and capacity, lack of stakeholder engagement which affects sitting of the environment and climate change committee as well as the implementation of the environmental programmes envisaged in the city. The city's priority and options are stated as to integrate and strengthen environmental management and climate change programmes within the city.</p>
King Sabata Dalindyebo	<p>KSD municipal scorecard demonstrated that the Municipality (i.e.in, its 'situational analysis') is aware of climate change and the mitigation and adaptation measures. These include the Spatial Development Framework plans, an Environmental Management Unit plan established to realise and effect environmental management goals in the Municipality; Integrated Environmental Management Plans; Environmental Awareness Programmes on Climate Change, Draft Energy Efficiency, and Climate Change strategy waiting for approval by the council.</p> <p>The KSD municipality stated that Air quality management is a function of the district municipality (O.R. Tambo), 'as this is their responsibility. On the 'vision and objectives' components, the Municipality envisages a sustainable clean environment, while on 'actions and implementation of the Municipality enhances climate change resilience through, among others, the Disaster Management Plan with key performance indicators indicated in the planning. Lastly, 'options and priorities' prioritisation of climate change-related issues, such as sustainable environment, are clearly stated.</p>
Nyandeni	<p>In its 'situational analysis,' the Municipality demonstrates its awareness of climate change issues and the adaptation and mitigation measures needed. That is, the Municipality indicates that it is characterised by high temperatures/ rainfall /subtropical climate and the need to have climate change measures in place due to its geographical location. Thus, the Municipality further states the need to develop climate change response measures, develop Disaster Risk Reduction in the Agricultural sector, establish Disaster Management Services by the Municipality with the support of O.R. Tambo municipality, Vulnerability Assessment in the Municipality conducted by the O.R Tambo district.</p> <p>Nyandeni municipality's vision and objectives state the need for a well-protected environment, although they do not directly indicate detailed climate mitigation and adaptation measures. In terms of 'actions and implementation,' there are strategies in place through the economic and environmental cluster, such as disaster risk management. The Municipality on 'options and priorities' does prioritise environmental issues, although not directly specifying them as climate change mitigation and adaptation strategies.</p>
Umzimvubu	<p>The municipality status quo analysis does indicate climate change (drought, fire, floods, hail, and storms, among others) effects as the Municipality is susceptible to and even mentions it in its SWOT analysis. Although not directly articulating on climate change response, the Municipality's vision and objectives state the need to develop and promote an integrated sustainable environment. In terms of actions and strategies of the Municipality, it indicates the need for municipal planning documents (SDF, sector plans, infrastructure plans, and IDP), which should include a measure that should directly mitigate the climate change impacts. However, it is unclear whether the Municipality has developed those plans, except for the Alfred Nzo District Climate Change Response Strategy (transition to low carbon economy, building climate change, and support for the green economy). Regarding the actions and implementation measures towards climate change, the Municipality mentions that its SDF should focus on, among others; the Disaster Vulnerability in the area; the development of Storm Water Manage; plan; the Municipality has a disaster management plan and cooperation with the district in providing for this service. In terms of 'options and priority, 'a clean environment' is prioritised by the Municipality, although not explicitly stated as climate change.</p>

Gauteng: Municipality	Municipal IDP Score
City of Tshwane	<p>The City of Tshwane, in its status quo analysis, mentions disaster risks posed by climate change (heat stress, flooding risks, fire, drought, and deterioration of water quality), and the City indicated the need for mitigation and adaptation measures to respond to these climate impacts (such as the need to have green in. The 'vision and objectives' indicated that the City envisages a clean and sustainable environment (the City can expand on this/ include/state climate change measures). The 'actions and implementation' to enhance climate change measures in the City include renewal in conducting a Comprehensive Risk and Vulnerability Assessment to provide a quantified municipal indicative risk profile of the City for its Municipal Disaster Management Plans, including standardising templates to assist municipalities in the City in identifying development and related operational projects that align with disaster risk reduction measures and associated projects (green infrastructure building integrated into infrastructure planning) to mitigate the effects of climate change and the monitoring and evaluation of those projects.</p> <p>In terms of 'options and priorities,' the City prioritises environmental management programmes (Improving its Disaster Management plans, developing early warning systems, an m prove on, its risk and vuln ability assessments) and, as a commitment, is a member of C40 Cities Climate Leadership Group (C40). The C40 organisation supports cities and their mayors to collaborate effectively, share knowledge and drive meaningful, measurable, and sustainable action on climate change. In doing so, the City is complying with specific planning and reporting requirements set out by developing a climate change response strategy to respond to the findings of its annual Greenhouse Gas (GHG) Emissions Inventory ('carbon footprint') and its Climate Change Vulnerability Assessment.</p>
Midvaal	<p>The Municipality is aware of the environmental impacts of climate change and the need to address these challenges. The Municipality is also faced with and is enforcing compliance regarding pollution, biodiversity, and landscape. Regarding the 'vision and objectives,' the Municipality indicates the need for a sustainable environment (not climate change per se). For 'actions and implementation,' the Municipality has identified and seen the need to adopt a Climate Change Response Plan in line with the Draft Sedibeng Climate Change Response Plan and the Gauteng Climate Change Strategic Action Plan. Not only that, in its efforts to mitigate the effects of climate change, the Municipality is in the process of developing an Integrated Waste Management Plan (IWMP), and the Municipality has adopted a Five-Year Water Demand Management & Water Conservation Plan. The Municipality has approved a Draft Green Buildings policy and Implementation plan that aims to provide guidelines on energy-efficient buildings and the benefits thereof. On 'options and priorities' Municipality indicate the need for a sustainable environment (but does not categorically state climate change measures as the core).</p>
RandWest City	<p>Its status quo analysis is aware of climate change effects (pollution), and it is stated in its SWOT analysis. Acknowledge the need to build resilient communities to avoid and reduce the impact of climate change and disasters. The 'vision and objectives' indicate the Municipality's environmental challenges and the need for environmental management and education to take center stage. One of the strategic goals/actions of the Municipality includes the need to promote an inclusive green economy.</p> <p>However, locating the Public Safety Department, 'the actions of the Municipality do indicate a lack of Climate Change Mitigation Strategy, including the lack of Disaster Management Plan, and the Municipality is developing it. In terms of 'actions and implementation,' the Municipality is in the process of adopting the West Rand District Municipality Climate Change Vulnerability Assessment and Climate Change Response Plan. The Municipality has also prioritized the advertising and filling of the post of an Environmental Officer responsible for Air Quality and Climate change. The Municipality has identified the need to capacitate the Environmental management unit to ensure the development of Environmental Strategies, policies, and bylaws, to govern development activities within the Rand West City Local Municipality, and to enforce bylaws in cases of non-compliance. On 'options and priorities, the Municipality has key priorities programmes such as improvement and maintenance of drainage systems, air and water, and pollution.</p>

KZN Municipality	Municipal IDP Score
Ethekewini	<p>The Ethekewini City states in its status quo- that climate change is a challenge in the area as it impacts on the community at large ,especially the vulnerable, and as such sustainable environmental measures should be integrated into all programmes and projects. The vision and objectives of the city do allude to a city that is climate change responsive and sustainable. In addressing climate change impacts in line with national and international agreement on 'actions and implementation; the Ethekewini metro is part of the C40 network where climate change assessment have been conducted; there is also the Municipal Climate Protection Programme which assist municipality in adapting to and mitigating climate change including mainstreaming climate change into programmes and projects of the municipality. There is also the Durban Climate Change Strategy which outlines how the city should integrate climate change mitigation and adaptation strategies into functions and operations of the city. The City further acknowledges that climate functions is within the Environmental Planning and Climate Protection Department as it has been traditionally regarded as an 'environmental issue'- hence fragmented approach makes it difficult to drive implementation across the city in order to achieve integrated planning. However, there is a growing recognition in the city that climate change is also a social and economic issue that cuts across the various departments in the City. Further the city does prioritise various climate change projects such as Renewable Energy Roadmap Strategy, the C40 New Buildings Energy Programme and the development of the City's Transformative River Management Programme. Also, in implementing these programmes there are challenges such as; inability of climate change in influencing strategic planning, development and implementation, limited integration of departmental climate change plans and actions as well limited resources and capacity to implement; inadequate monitoring and tracking systems on progress on mitigation and adaptation actions; climate change across various sectors is not performance linked; lack of climate change knowledge delays the effective implementation; due to limited resources, climate change in the city competes with other service delivery interests. The vision and objectives for the city highlight the need for the city to be climate change ,smart given the climate change impacts in the city.</p>
Msunduzi	<p>In terms of situational analysis, the municipality is aware of climate change impacts and the need to have sustainable measures in place. In responding to climate change impacts, the municipality has developed and adopted a Climate Change Response Strategy, Climate Change Policy as well as mitigation and adaptation strategy. The municipality's vision and objectives states the need to adapt and respond to climate change. In terms of actions and implementation, the municipality has conducted a Climate Risk Vulnerability Assessment with the aim of identifying hazards in the area, with document in its final stages for council approval, there are also programmes on Environmental Education and Awareness in the community. Further, the municipalities has a Disaster risk planning for disaster management in place with focus on disaster reduction rather than the status quo of disaster response. Despite these efforts, municipalities reported the limited knowledge on climate change impacts, lack of enforcement of environmental laws, limited funding, and lack of cooperation and skills. On options and priorities, the municipality envisages a municipality functions efficiently in terms of delivering on its socioeconomic and environmental services.</p>
Mthonjaneni	<p>The municipality acknowledges the negative impacts of climate change and that it is a threat to humans and the natural environment.</p> <p>Vision and Objective of the municipality include creating a secure environment and service delivery to the community</p> <p>Actions and Implementation of the municipality state that since climate change is a threat to the environment, measures should be in place to reduce mitigation, with adaptation being a vital response. The municipality acknowledges the hazards (floods and fires) in the area with disaster risk reduction methods that need to be in place and explicit on ex-ante approaches to be used. However, in terms of implementation, challenges exist; such as staff shortages, limited budget in the unit, and poor attendance of sector departments at local disaster advisory forums.</p> <p>In terms of 'options and priority', the municipality has prioritised the development of a climate change response plan resulting in the identification of climate change vulnerability indicators, including disaster risk reduction measures.</p> <p>Climate change projects at the municipality include research on climate-proofing bridges and roads, the establishment of a Disaster Management Center and enhance maintenance on stormwater drainage systems.</p>
KwaDukuza	<p>In the situational analysis, the municipality is aware of climate change and its associated impacts and the need to have sustainable measures in place to address the negative impacts. The vision and objectives of the municipality indicate the a vibrant city that has inclusive growth, that adapts and responds to climate change and promoting environmental sustainability.</p> <p>On actions and implementations, the KwaDukuza municipality developed and adopted Climate Change Strategy in 2013, which incorporates adaptation and mitigation measures. Further, in the climate development Project (CDP), the municipality reports on its climate change impacts and progress, whereas in 2020, the CDP reported highlighted its understanding of climate change and has collected data on climate change impacts and risks. The Environmental management unit in the municipality strives to raise environmental awareness to its community as well as other functional areas/ units at the municipal level. There is also the Disaster Management unit which needs to ensure effective disaster management takes effect. Despite these efforts, there are challenges; poor enforcement of environmental laws and limited knowledge to climate change impacts. . In terms of implementation, it is stated what is in the pipeline such as implementation of approved green building guidelines and Low Carbon Emission strategy as well mainstreaming of climate change projects by all municipal business units. On options and prioritise, the municipality states its focus on environmental sustainability, where issues of climate change and reporting forms part of its delivery agreements.</p>

CHAPTER 5:

Investigating spatial inequalities and the efficacy of municipal spending in driving local economic development

5.1 INTRODUCTION

Post-1994, local government was placed at the forefront of the developmental agenda. Municipalities play an essential role in improving the living standards of citizens by providing basic services to communities. These basic services include the provision of water, sanitation, electricity and waste removal. Municipalities are also envisaged to play a transformative role in driving local economic development (LED) by creating an enabling environment conducive to economic growth through, amongst other things, investing in basic infrastructure. While some municipalities have made progress, many are struggling to fulfil their basic service delivery mandate and have been unable to drive LED initiatives. Large spatial inequalities across municipalities persist, undermining the revenue-generating powers the Constitution confers on them.

The COVID-19 pandemic amplified many of the challenges faced by local government. Before the pandemic, many municipalities were already in a strained cash flow position. For the 2019/20 financial year, 175 municipalities were in financial distress, and 123 had unfunded budgets (National Treasury, 2020). The lack of fiscal space at the local government level places its viability at risk (Financial and Fiscal Commission, 2019). Post COVID-19, essential service delivery continues to be severely hampered – constraining LED, deepening spatial inequalities, and undermining fundamental socio economic rights enshrined in the Bill of Rights.

While municipalities are entitled to grants from the national fiscus to fund some of their operations, collecting their own revenue is crucial for the sustainability of the municipal finance system. However, municipalities' ability to raise own-source revenues is under significant pressure, especially in the post-COVID-19 landscape, characterised by high inflation, a reduction in consumer purchasing power and weak economic growth projections. Fiscal consolidation efforts put additional strain on the intergovernmental transfer system. In this rapidly changing economic climate, it is necessary to re-evaluate the local government fiscal framework and investigate municipal performance of LED-related spending. In doing so, it is also necessary to take spatial inequalities prevalent across municipalities into account.

5.2 LITERATURE REVIEW

Local government fiscal framework (LGFF)

The White Paper on Local Government 1998 (hereafter referred to as the "1998 White Paper") sets out the fiscal policy framework for local government and has three aims: to address underlying financial problems municipalities face; to eradicate poverty and pursue strategies to enhance growth, job creation and competitiveness; and finally, to fulfil their constitutional mandates through the delivery of basic services. According to this policy framework, municipalities are assumed, to a large extent, to be financially self-sufficient. National Treasury estimates that 75 per cent of municipal budgets are self-generated, while approximately 25 per cent come from transfers, which informs the vertical division of revenue between the national, provincial and local spheres. To fund themselves, sections 229 and 230 of the Constitution grant municipalities a wide range of taxation and borrowing powers, and section 227 of the Constitution entitles the local sphere of government to an equitable share of revenue raised nationally. Municipalities may also receive additional grants on a conditional

or unconditional basis for them to be able to carry out their mandate. Due to large spatial inequalities and varying degrees of economic development, the sources of revenue across municipalities differ remarkably, and the proportion that own revenue versus transfers contribute towards overall revenue varies significantly.

Local economic development (LED) policy framework

The current developmental policy framework in South Africa for local government is pro-poor. The Constitution encourages local government to play a pivotal role in job creation and poverty reduction through LED. The developmental aspect of local government is not just highlighted in the Constitution, but is reflected throughout the legislation impacting local government. The 1998 White Paper also introduced the concept of developmental local government, that supports the role of local government in LED. This document highlights that local government is not responsible for creating employment, but rather for creating an enabling economic environment. The 1998 White Paper identifies three key developmental outcomes that local government must focus on, which include the provision of sustainable household infrastructure and services, the creation of liveable and integrated local areas, and the promotion of LED and community empowerment and redistribution (Mashamaite & Lethoko, 2014).

The Municipal Structures Act (1998) determines the division of powers and functions between the various categories of municipalities and their regulatory governance structures. LED is one of the key strategic tools through which municipalities can fulfil their developmental duties. The Municipal Systems Act of 2000 requires all municipalities to prepare a five-year IDP, which is reviewed annually; the development targets need to be set out in this strategic document, including detailed projects and programs (Allan, 2003). According to Nel and Rogerson (2005), the main reason for the lack of implementation at a municipal level is a poor understanding and analysis of local economies, unsustainable projects, and lack of capacity and resources.

The role of municipalities in economic development

Sustained economic growth results in positive changes in their citizens' lives and the country's welfare (Magdalen, S & Suhatman, R., 2020). In many countries, especially developing economies, a measure of success is achieving sustainable growth levels. Kuznet (1971) defines economic growth as a long-term rise in capacity to supply increasingly diverse economic goods to its population; this growing capacity is based on advancing technology and the institutional and ideological adjustments it demands.

Given the independent roles and functions of government, a collaborative approach is required to achieve the country's economic development objectives. Local government is a key role player in economic development. Towns and cities have many varying attributes, and their speciality in a country's economy will be in different sectors, given their socio economic and economic attributes. As such, the policies for these areas need to be geared towards the circumstance of each region for them to be the most effective. Councils and policy makers are more familiar with the local economy compared to the other spheres of government due to the closer relationship with local stakeholders. Given this, they can adapt their policies and strategies to the local conditions to promote the area/region's advantages and reduce obstacles in the system (OECD, 2022).

This does not diminish the importance of the roles of the other spheres of government, as these spheres have interdependent roles in achieving economic development objectives. This is essential as neither sphere would be able to achieve the objective without the assistance of the other. This is further evidence that local government is seen as the implementing agent of national programmes.

Many African countries are highly centralised, and their local governments have lower levels of responsibilities and resources than local governments in other economies with similar income levels. Not only does this limit their ability to pursue economic development policies, but it has a negative impact on economic development. Furthermore, decentralisation is an important measure for supporting economic growth throughout a country, thus facilitating economic development at the national level.

Although municipalities play an important role in economic development, they should not do this in silos from the other spheres of government (OECD, 2022). In South Africa, there are three spheres of government that should work together to achieve the developmental goals of the nation, as such, national, provincial and local governments play complementary roles. This coordination is reemphasised in the District Development Model (DDM) under which all three spheres of government are envisaged to coordinate and integrate development plans and budgets and mobilise the capacity and resources of government to civil society, including businesses, labour and community, in pursuit of inclusive growth and job creation (COGTA, 2019).

The DDM is firmly based on analysis of previous and current initiatives to improve developmental local government and cooperative governance, wherein developmental change is shaped and owned at local level in partnership with communities, citizens, and social actors. The successful functioning of local government is critical in this regard to ensure that the sector is well-positioned to carry out this role. However, a more cohesive governance and overall coordination and functioning of the three spheres of government is required for the successful implementation of this model and the achievement of its goals.

However, as a tool of intergovernmental relations systems, the DDM is still fraught with controversy. According to the FFC (2022), while the model can be an important driver of LED through joint cooperation amongst the three spheres of government, it is established against the backdrop of municipalities that are dysfunctional and in financial distress. Furthermore, questions and confusion abound on the funding requirements of the model and the role to be taken by the respective role players, that may become a hindrance to the successful implementation and rollout of the model, which has been rather slow since the President announced the model in 2019. In the same report, the Commission emphasised the need for government to hasten the implementation of the DDM to allow for broader cooperation amongst the three spheres of government while also ensuring there is stability in local government as the sector is pivotal for the success of the model.

An overview of LED

Since the abolishment of apartheid, the concept of LED has gained prominence in economic development (Makhatini, et al., 2020). LED may be defined as the process in which local government stimulates and maintains business activity and employment (Blakely, 1994).

Scheepers and Monchusi (2002) define LED as a process that is managed by municipalities in accordance with the constitutional mandate to promote economic and social development. This illustrates the key role that local government is expected to play in economic development. The ILO (2006) states that local economies are required to uncover solutions to improving and strengthening the regions' competitiveness and comparative advantage, which will allow them to compete globally.

According to Meyer (2014), LED is the microeconomic component of development economics. Development economics is defined as a process of improving the quality of life, especially for the poor, which encompasses higher household incomes, as well as several other factors such as higher levels of education and skills, improved standard of healthcare and nutrition, equal opportunities, etc. (World Bank, 1991). Improving these factors would ultimately lead to reducing or eradicating poverty. The concept of LED has been accepted globally as a tool to address issues of poverty and job creation in both rural and urban areas. According to COGTA, LED is defined as "an approach towards economic development which allows and encourages local people to work together to achieve sustainable economic growth and development, thereby bringing economic benefits and improved quality of life for all residents in a local municipal area".

LED and government expenditure

Government expenditure can be split into two categories, namely, 1) routine expenditure and 2) development expenditure (Magdalen, S & Suhatman, R., 2020). Development expenditure relates to government spending to increase the region's capital through soft and hard infrastructure. This expenditure illustrates the government's policy geared towards improved and sustainable public welfare. In this manner, government spending priorities can be seen as spending on the development of a country; non-consumptive government expenditure is an investment in physical and non-physical projects such as health care and education development. Magdalen & Suhatman (2020) define development expenditure as the vehicle to realise prosperity through economic growth improvement. In this scenario, priority is assigned to sectors that will stimulate broader economic activities.

Furthermore, the expenditure by the government shows its role in improving the lives of its citizens through the aim of increasing economic growth, which is demonstrated through the country's fiscal policy through its allocation to local government. The government's direct and indirect expenditure is aimed at encouraging output, that will increase the region's economic growth.

Many infrastructure projects driving LED are funded through a capital mix, which is partially funded through conditional grants and national transfers to aid in the funding gap that municipalities may experience in service delivery. However, given the current economic environment, which has been further exacerbated by COVID-19, the country faces a fiscal crisis intertwined with lacklustre economic growth from the past decade and rising social pressures.

In addition, the South African economy has not recovered to pre-2007 growth levels and has experienced rising fiscal deficits and unemployment. As part of the economic recovery plan, tabled in October 2020, the government has embarked on efforts to increase infrastructure investment and related institutional reforms. The Public Sector infrastructure report (2020) states there was a need to increase capital investment from both the private and public sectors to achieve an increase in economic growth, which would lead to a reduction in unemployment and poverty.

According to Nel and Rogerson (2005), the main reason for the lack of implementation at a municipal level is a poor understanding and analysis of local economies, unsustainable projects, and lack of capacity and resources. Many of the flaws identified pre-2010 are still prevalent today. A political, economic, social, technological, legal and environmental (PESTLE) analysis of the local government's external environment was conducted to illustrate the reasons for their persistent ineffectiveness in delivering.¹⁵ PESTLE is an effective analysis tool for evaluating the external environment. Institutions or organisations don't have direct control over their external environment; however, it is crucial that policymakers understand the business environment to make sensible decisions.

Local government in the post-COVID-19 landscape

Before COVID-19, local government was already facing numerous challenges. Of the 257 municipalities, 63 per cent were already in financial distress (Chigwata & de Visser, 2021). The growth in national transfers to the local government sphere was already in decline before the pandemic hit. There has been even greater pressure on the state to consolidate its spending due to rising debt and debt-service costs since (Chigwata & de Visser, 2021). In many ways, the pandemic has amplified municipalities' challenges and highlighted inefficiencies in the local government sector. Municipal revenue and spending patterns have been adversely impacted, although municipalities have been affected to varying degrees, given their different circumstances.

Metros tend to be more reliant on own-source revenues and thus felt the economic shock of the COVID-19 restrictions on economic activity more severely compared to smaller towns and rural areas, where economic activity and the demand for public services were already far less pronounced (Chigwata

¹⁵See Appendix A.

& de Visser, 2021). However, having sufficient autonomy to regulate fiscal space assisted some cities in striking a balance between the needs of residents and their institutional capacity to continue providing services to the public (Jackson, 2022).

Overall, local governments faced an unprecedented dual challenge of combating the pandemic while simultaneously trying to protect and rebuild the local economic landscape once restrictions were gradually eased (Jackson, 2022). A decrease in revenue collection rates was observed across all municipalities. This decrease may be attributed to the rapid decline in economic production following the COVID-19 lockdown restrictions on economic activity. The pandemic negatively impacted consumers' incomes to the extent that some were unable to pay municipal bills, which, in turn, harmed municipal debt. The number of municipalities that could not pay Eskom and Waterboards increased between 2019 and December 2020 following the onset of the pandemic. (from 11 to 13 and from 24 to 38, respectively)

In June 2021, 23 municipalities were classified as dysfunctional and were subject to provincial intervention to restore financial stability, governance and service delivery (AGSA, 2022). By February 2022, the number of dysfunctional municipalities that required provincial or national support to oversee their day-to-day operations had increased to 33 (AGSA, 2022). Furthermore, despite financial support, local government spending inefficiencies persist post-COVID-19. In many cases, the quality of municipal services is declining. In many respects, local government has failed to live up to its transformative role as envisaged by the Constitution and the 1998 White Paper policy framework.

5.3 RESEARCH METHODOLOGY

The proposed study follows a mixed approach to achieve the set objectives. The research presents a descriptive overview of the literature related to economic development and the role of local government. The research methodology is both qualitative and quantitative and uses secondary data. The quantitative aspect of the analysis relies on data to assess the financial and socio economic conditions across different types of municipalities in South Africa. Municipal revenue sources are also disaggregated to enhance our understanding of the extent to which different types of municipalities rely on various revenue sources. Data is further used to draw the vital distinction between municipalities heavily dependent on own-source revenues and municipalities that mainly depend on intergovernmental fiscal transfers to fund their expenditure needs.

This study also uses municipal mapping to develop an appropriate tool to assist municipalities in their strategies for improved revenue collection and LED, which is influenced by the local characteristics municipalities find themselves. More specifically, ArcGIS is used to map the areas of municipal borders to assess each municipality geographically and use illustrative data to show the large spatial inequalities across South African municipalities. Spatial inequalities are shown by considering geographical location and sectoral development, demographic characteristics, key infrastructure points and access to basic services across two local municipalities.

5.4 RESULTS

5.4.1 Local government fiscal framework

Section 229 of the Constitution grants municipalities substantial taxation and borrowing powers. As a result, municipalities have a variety of revenue sources at their disposal to meet their expenditure obligations, including own revenue, borrowing and intergovernmental transfers.¹⁶ In terms of borrowing, Chapter 6 of the MFMA details the conditions for municipalities to borrow funds with respect to long-term and short-term debt. The Financial and Fiscal Commission has previously noted that even though South Africa has a sound borrowing framework, the uptake of debt financing by municipalities remains low.

¹⁶For the LGEs allocations across local municipalities mapped in ArcGIS, see Figure 10 in Appendix C.

Borrowing is concentrated largely in metropolitan municipalities due to their stronger tax bases and creditworthiness. Post financial crisis of 2008/9, the share of municipal borrowing declined and moderated at 8 per cent of total revenue (Financial and Fiscal Commission, 2019). While borrowing should be approached with caution, given the size of their economies and stronger revenue bases, large cities and metropolises have the potential to leverage borrowing and reduce their dependency on intergovernmental transfers, particularly in the form of conditional grants used to fund the gap in capital projects, such as for infrastructure (Financial and Fiscal Commission, 2017). The Financial and Fiscal Commission has also considered supplementary revenue instruments for municipalities (Financial and Fiscal Commission, 2019). Again, metropolitan municipalities and intermediate cities have the most potential to explore and exploit supplementary sources of own revenue, while rural municipalities have limited scope to do so.¹⁷

In terms of intergovernmental transfers, municipal categorisation impacts a municipality's level of transfer dependency. For example, the own income of metropolitan municipalities (Category A) makes up the bulk of its operating budget at 87.82 per cent (National Treasury, 2020). Local municipalities (Category B) rely on transfers and subsidies to fund approximately a quarter of their operating budgets (4th Quarter Section 71 Reports, 2021). However, this aggregate figure for local municipalities is distorted and does not capture stark disparities in revenue-generating capabilities. Property rates are a substantial source of own revenue for municipalities, whilst trading services (electricity, water and sanitation) contribute the bulk of municipal revenue. Municipal trading services such as electricity, water, sanitation and refuse removal constitute the primary source of own revenue in metros and local municipalities. However, the socioeconomic and geographic profile of the municipality influences the extent to which they can collect their own revenue.

Fostering LED and increasing the municipal tax base of the local government sector thus necessitates an in-depth approach. The following sections hone in on two local municipalities to illustrate the nature and extent of spatial inequalities that undermine the municipal tax base and the fiscal capacity of different categories of municipalities.

5.4.2 Exploring spatial inequalities across local municipalities

To function sustainably, municipalities require a strong revenue base sufficient to cover their operating expenditure and provide basic services. The proportion that own revenue and transfers contribute to total revenue varies significantly across different types of municipalities. Overall, the ability to raise its own finances is heavily influenced by the extent of economic activity in a municipality (Plakkies, 2022).

Municipalities may be grouped into three categories: metropolitan municipalities (Category A), local municipalities (Category B) and district municipalities (Category C). Local municipalities can further be distinguished into secondary cities (Category B1), those with a large town at its core (Category B2), those with small towns (B3), and rural municipalities (B4).

Towns and cities have many varying attributes, with different sectors driving their economies. Therefore, preceding the analysis of municipal revenue and expenditure, this section provides an overview of the two selected local municipalities, namely Joe Morolong and Steve Tshwete, to enhance our understanding of their local economies. The analysis uses ArcGIS mapping to highlight each municipality's key geographic and economic features that ultimately impact on revenue-generating capabilities.

5.4.2.1 Steve Tshwete

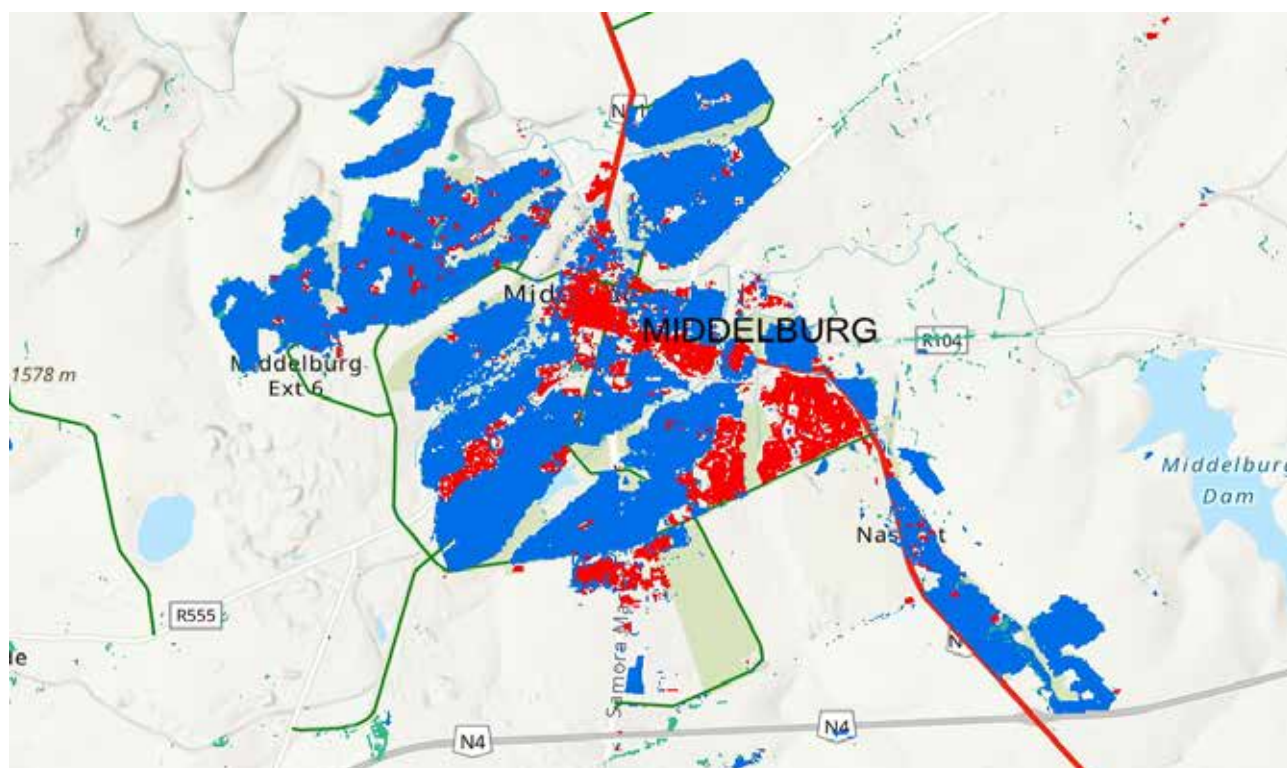
Steve Tshwete is a Category B1 municipality with the secondary city of Middleburg, situated in Mpumalanga in the Nkangala district municipality. It is approximately 3 976 km² in area. In 2016, the total population of Steve Tshwete was 278 749, and its population is expected to increase to roughly half a million by 2030 (Steve Tshwete Local Municipality, 2022). Between 44–45 per cent of households are poor, which is the lowest rate of indigent households compared to all other local municipalities in Mpumalanga (see Figure 13 in Appendix D).

¹⁷See Annual Submission on the Division of Revenue 2020/21, pg.50 for more detailed insights into the FFC's work on supplementary revenue sources for municipalities.

There has been a growing number of industries in the city of Middelburg. In 2020, the largest industries in Steve Tshwete were mining (22.7 per cent of GDP), manufacturing (22.3 per cent) and community services (15.7 per cent) (Steve Tshwete Local Municipality, 2022). This was followed by finance and trade, contributing 12.2 and 10.1 per cent of GDP, respectively (Steve Tshwete Local Municipality, 2022). In total, the primary sector contributes 27.1 per cent, the secondary sector contributes 28.2 per cent and the tertiary sector 42.6 per cent of the total GDP in the municipality (Steve Tshwete Local Municipality, 2022). The industrial areas of Middelburg, the economic hub of Steve Tshwete, are shown in Figure 5.1.

The mapped layout of key infrastructure points in Steve Tshwete is found in Appendix B (Figure 5.8). The municipality has the benefit of the national highway going through the middle of the municipality, with secondary and arterial routes connected. Other important features to note include an airport, which is near both Middelburg and along the national highway, and many water infrastructure points that are situated near rivers. Being more developed and populated than Joe Morolong, Steve Tshwete has more towns, shown in red below.

Figure 5.1: Residential and industrial areas of Middelburg, Steve Tshwete



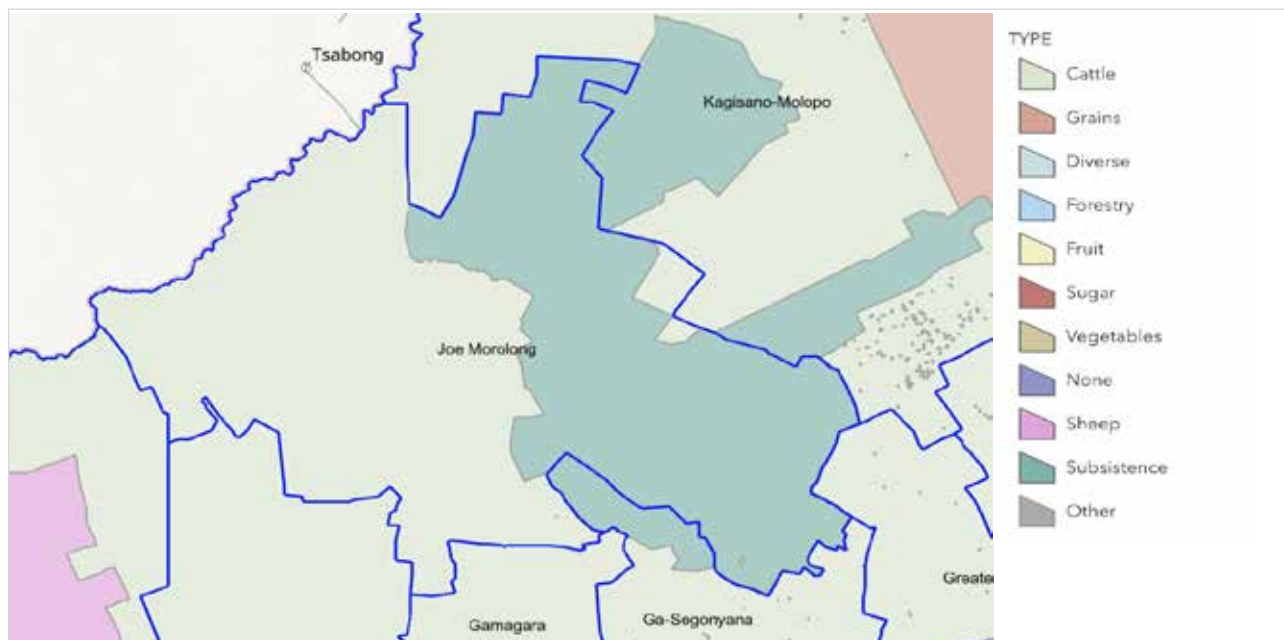
Source: ArcGIS

5.4.2.2 Joe Morolong

Joe Morolong local municipality is a Category B4 municipality situated in the North-East of the Northern Cape province. The municipality is located in the John Taolo Gaetsewe District municipality and is approximately 20 172 km². Joe Morolong has a much smaller population of 84 200 (Stats SA, 2016). Category B4 municipalities are predominantly rural areas with little economic activity. The municipality is characterised by informal establishments connected mostly by gravel roads. The municipality has a small economic base with high rates of poverty and unemployment (Joe Morolong Local Municipality, 2021). Figure 5.12 in Appendix D shows that Joe Morolong is the poorest local municipality in the Northern Cape, with a household poverty rate exceeding 70 per cent.

Agriculture, mining and community services are the most important contributions to Joe Morolong’s local economy, although tourism has the potential to grow due to attractions such as heritage sites and game farm hunting (Joe Morolong Local Municipality, 2021). Figure 5.2 shows the type of farming activity within Joe Morolong and indicates that cattle and subsistence farming are the most prevalent.

Figure 5.2: Type of farming activity in Joe Morolong



Source: ArcGIS

The map in Appendix B (Figure 5.9) illustrates key infrastructure points and water sources in Joe Morolong. We notice only two existing water infrastructure points along the Kuruman River, shown by the blue pins. Joe Morolong relies upon mining, specifically of manganese, which is visible by the gold pins and the green circles, which indicate manganese deposits and mining quarries, respectively. However, mining requires, amongst other things, a functioning transport network. Given the rurality of Joe Morolong, most roads are secondary routes and arterial roads, indicating that transport infrastructure is lacking. Joe Morolong has one airport situated in the west, with no surrounding towns in the vicinity. Overall, the municipality lacks the critical infrastructure to fulfil its service delivery mandate.

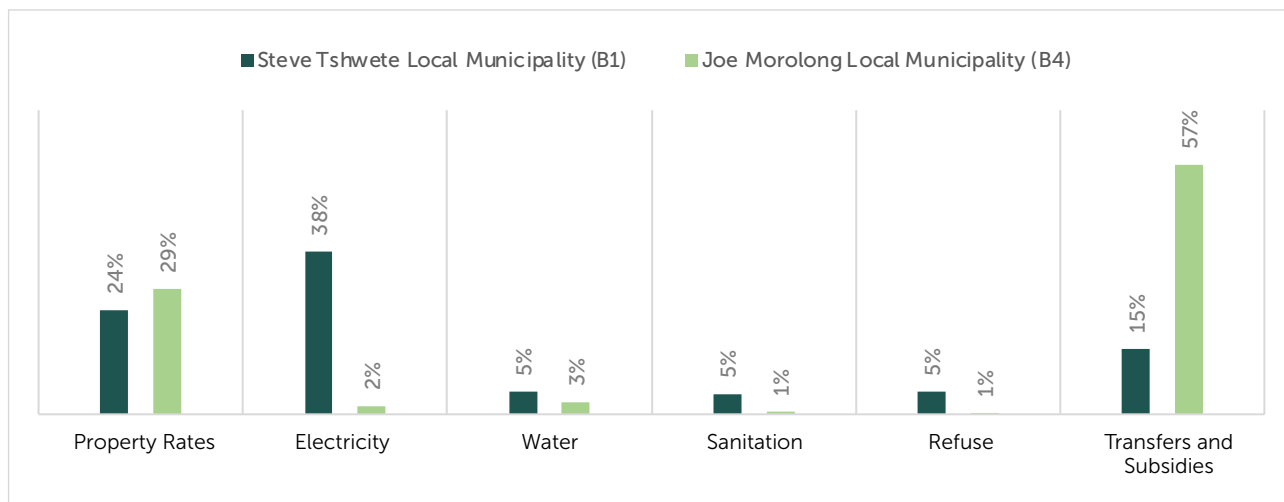
5.4.3 Municipal revenue base

Municipalities raise their own revenues by imposing property rates and charging tariffs for basic services. However, rising tariffs and increased living costs in the current economic environment continue to put downward pressure on household budgets and consequently limit revenues collected by municipalities, hampering service delivery.¹⁸ Figure 5.3 shows the revenue breakdown for Steve Tshwete and Joe Morolong. What we see are huge disparities across revenue sources for the two municipalities.

In Steve Tshwete, a more developed municipality with a stronger revenue base than Joe Morolong, sales from electricity make up almost 40 per cent of its total revenue, and only 15 per cent of total revenue comes from intergovernmental transfers. On the other hand, 57 per cent of Joe Morolong’s total revenue came from transfers and electricity sales only contributed 2 per cent. Considering Joe Morolong’s lower population and rurality informs us why this municipality is so much less reliant on electricity sales, and so much more reliant on government grants to fund its operations. Property rates across both municipalities appear to make up a significant portion of total revenue, despite their varying geographical profiles and level of economic development.

¹⁸See Appendix E for municipal mapping of basic service for water, sanitation, electricity and refuse across Joe Morolong and Steve Tshwete in relation to their respective provinces.

Figure 5.3: Key revenue components across two local municipalities, 2020/21



Source: Section 71 reports 2020/21

Both municipalities generally have low revenue collection from sanitation, water and refuse services. Payment for water services has declined in past years due to non-payment, inadequate billing systems, climate change-induced droughts and decaying municipal infrastructure (Financial and Fiscal Commission, 2019).

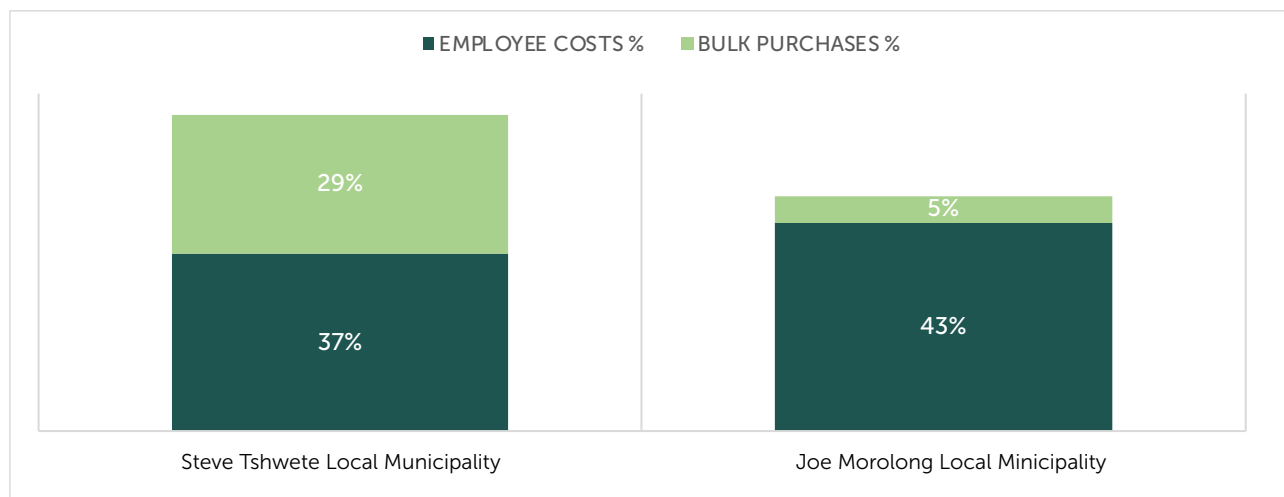
Overall, Figure 5.3 provides an example of the high level of transfer dependency for rural municipalities relative to secondary cities. Municipalities are, in principle, required to be financially self-sufficient to foster accountability at the local level (Steytler, 2005). However, amongst many smaller, rural municipalities, unfavourable economic conditions weaken the capability of municipalities to collect their own revenues and sustain themselves financially (Moloto & Lethoko, *Municipal Financial Viability and Sustainability in South Africa: A Case of Molemole Local Municipality*, Limpopo Province, South Africa, 2018). As shown in Figure 5.3, these municipalities tend to rely heavily on intergovernmental transfers, in the form of grants and subsidies, to maintain operations.

5.4.4 Municipal expenditure

Given municipalities' core service delivery mandates and the key developmental role they are intended to play in fostering inclusive economic growth at the local level, the manner in which municipalities spend their money should concern policymakers. Despite having limited resources, the Auditor-General reported R1.96 billion in fruitless and wasteful expenditure was incurred by municipalities in the 2020/21 financial year, indicating poor management of funds (AGSA, 2022). At the aggregate level, employee compensation has continued to increase as a proportion of total expenditure, absorbing a large portion of operating budgets and crowding out expenditure on service delivery (Plakkies, 2022). The situation tends to be worse for rural municipalities, where on average, only 7 per cent of expenditure is geared towards delivering services, and the bulk of expenditure is for employee costs (Plakkies, 2022).

The analysis in Figure 5.4 compares two key expenditure items, namely, bulk purchases and employee costs, across Steve Tshwete and Joe Morolong. In Steve Tshwete, bulk purchases amounted to 29 per cent of total operating expenditure. In Joe Morolong, on the other hand, bulk purchases consumed only 5 per cent of total operating expenditure in 2020/21. Such underspending on bulk services of key municipal services severely constrains a municipality's ability to fulfil its service delivery mandate.

Figure 5.4: Key expenditure components as a percentage of total expenditure



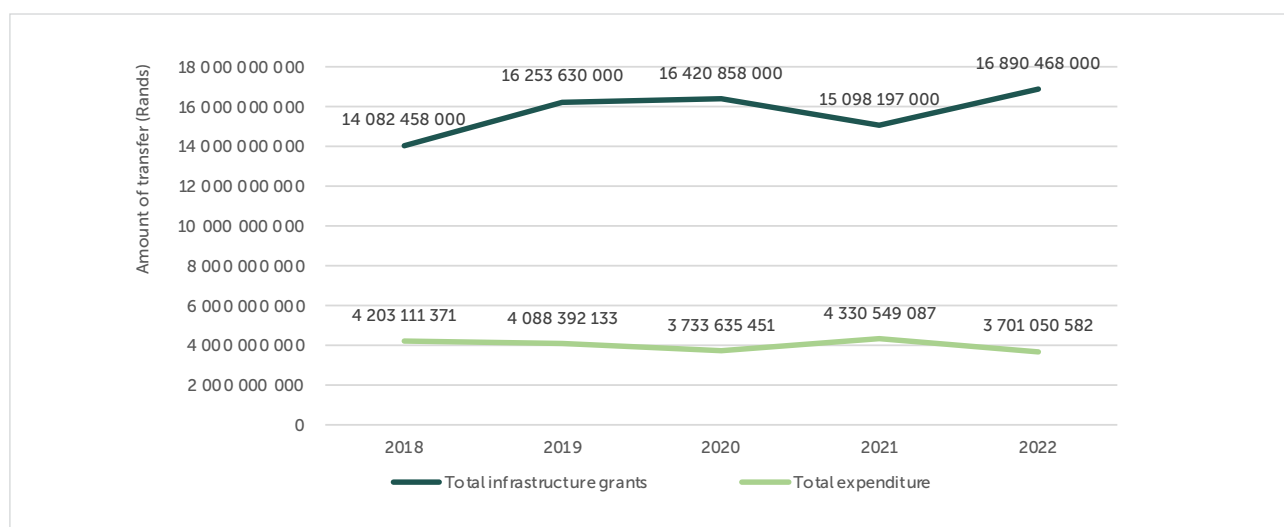
Source: Section 71 Reports 2020/21

Figure 5.4 also shows that both municipalities, especially Joe Morolong, spent a high proportion of its budget on employee costs, which are costs of an administrative nature. Employee costs consumed a significant proportion of operating expenditure: 43 per cent in Joe Morolong, and 37 per cent in Steve Tshwete. Section 153 of the Constitution requires municipalities to prioritise basic services and socioeconomic development on their budgets. Thus, there appears to be an unhealthy balance between core and non-core municipal functions with the effect that service delivery is compromised.

5.4.5 Municipal infrastructure spending

Investment in infrastructure is a crucial pillar of the state’s economic policy response to the COVID-19 pandemic and its detrimental impact on economic activity (Presidency, 2021). Municipalities require the necessary infrastructure to provide essential services. Capital investments by municipalities to implement infrastructure projects – and repair and maintain existing infrastructure – is critical for service delivery. This section focuses on infrastructure grant spending by municipalities. Figure 5.5 indicates this gross underspending of conditional infrastructure grants across local municipalities over the past five years, based on section 71 reports.

Figure 5.5: Aggregate infrastructure conditional grant allocation vs spending, 2018-2022



Source: MFMA Section 71 reports (2022) and author’s calculations

Despite financing provided by the national sphere of government to municipalities in the form of infrastructure grants, Figure 5.5 shows that grants are not effectively utilised at the municipal level. Ineffective spending on valuable infrastructure assets means that the quality of essential services, including electricity, water, refuse, and sanitation, will likely deteriorate. Underspensing and improper spending of municipal infrastructure grants continue to occur due to a variety of internal and external weaknesses, such as poor planning and contracting, poor project management, lack of technical capacity, inefficiencies in the procurement system and lack of intergovernmental coordination in managing and delivering infrastructure projects (Financial and Fiscal Commission, 2019). The specific grants included in the amounts in Figure 5.5 and the purpose of each infrastructure-related conditional grant are summarised in the table below.

Table 5.1: Breakdown of municipal infrastructure grants included in the analysis

Type of conditional grant	Purpose of conditional grant
Municipal Infrastructure Grant	To eradicate basic municipal infrastructure backlogs for poor households, microenterprises and social institutions that service poor communities
Integrated National Electrification Programme (Municipal) Grant	To implement the Integrated National Electrification Programme by addressing electrification backlog of residential dwellings and the installation of bulk infrastructure
Water Services Infrastructure Grant	To facilitate the planning and implementation of water and sanitation projects to accelerate backlog reduction and provide basic water and sanitation supply
Neighbourhood Development Partnership Grant	To plan and invest in targeted locations to attract third party capital investments aimed at spatial transformation, to improve the quality of life and access to opportunities for residents, generally in townships and rural towns.
Regional Bulk Infrastructure Grant	To develop new and upgrade and replace existing bulk water and sanitation infrastructure of regional significance that connects water resources to infrastructure across municipal boundaries, and to implement bulk infrastructure with the potential of addressing water conservations and water demand management projects.
Integrated Urban Development Grant	To fund public investment in infrastructure for the poor to promote increased access to municipal own sources of capital finance, and to ensure public investments are spatially aligned.

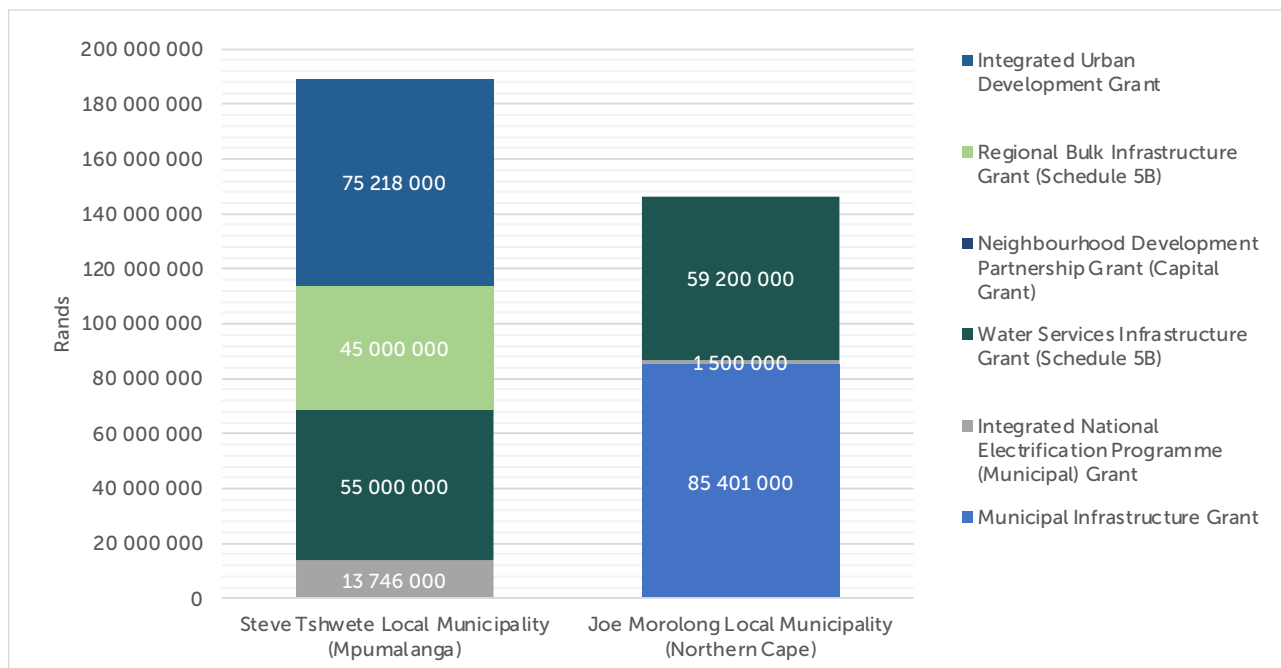
Source: Division of Revenue Bill Schedule 2021

Different infrastructure-related grants serve different purposes. The Municipal Infrastructure Grant (MIG) addresses municipal infrastructure backlogs, specifically in poorer communities, to ensure the provision of essential services such as water and sanitation (CoGTA, 2022). The grant also aims to improve infrastructure for roads and lighting for communities. Overall, infrastructure grants have growth-enhancing potential as they can alleviate some of the socio economic challenges faced by municipalities and improve the municipal revenue base. However, in addition to service delivery, municipalities also have an important role to play in driving LED. The latter purpose may be achieved with conditional grants such as the Integrated Urban Development Grant and the Regional Bulk Infrastructure Grant, which are more geared towards driving and enhancing LED.

Figure 5.6 below illustrates the rand amounts of infrastructure grants received by Steve Tshwete and Joe Morolong disaggregated by the type of grant received in the 2021/22 financial year.¹⁹ Steve Tshwete received approximately R190 million in infrastructure-related grants, with the Integrated Urban Development Grant making up the largest portion of this (R75.2 million), followed by the Water Services Infrastructure Grant (R55 million) and the Regional Bulk Infrastructure Grant (R45 million). On the other hand, the bulk of Joe Morolong's infrastructure grants (totalling roughly R145 million) was the MIG, which made up R85.4 million, followed also by the Water Services Infrastructure Grant (R59.2 million).

¹⁹Specific grants included in these amounts are the: Municipal infrastructure grant; Integrated National Electrification Programme (Municipal) Grant; Water Services Infrastructure Grant (Schedule 5B); Neighbourhood Development Partnership Grant (Capital Grant); Regional Bulk Infrastructure Grant (Schedule 5B); and the Integrated Urban Development Grant.

Figure 5.6: Breakdown of infrastructure grants received by selected municipalities (Rands), 2021/22



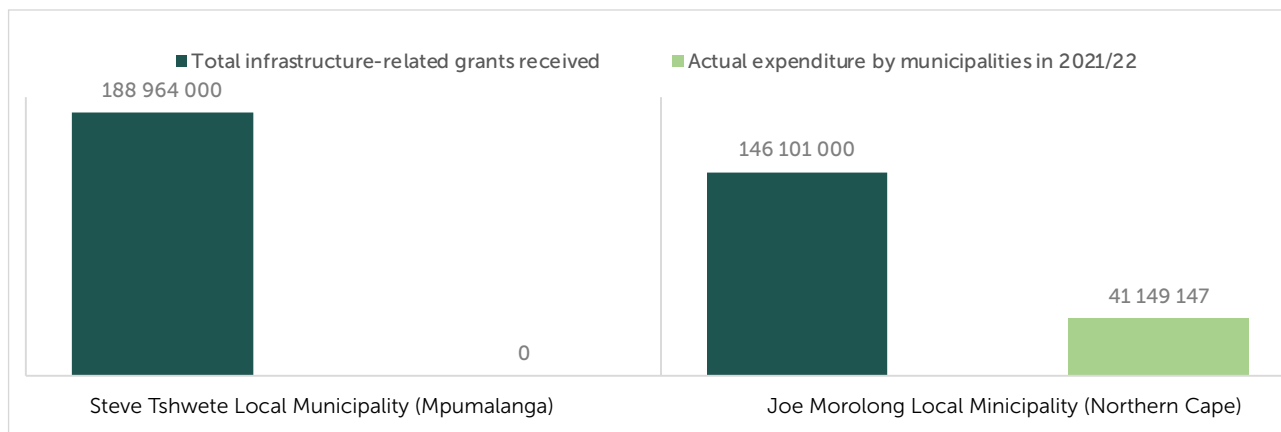
Source: MFMA section 71 reports

What is clear from the figure above is that Joe Morolong mostly receives funding to address backlogs in service delivery and water infrastructure, while Steve Tshwete receives funding for a much wider scope of local developmental objectives. This may suggest that B4 municipalities, which are predominantly rural areas, do not receive adequate funding support to drive LED initiatives, while more urban municipalities do. This may point to a lack of coherence in policy priorities in the local government sphere, particularly regarding the objectives of LED, since more funding appears to be granted to local municipalities that have greater revenue-generating capabilities. It could be argued that municipalities such as Steve Tshwete are already financially better placed, and that municipalities such as Joe Morolong require additional support from other spheres of government, to drive LED.

Effective spending on infrastructure at municipal level is crucial to support and strengthen service delivery. National Treasury standards suggest that municipalities should spend at least 8 per cent of the value of infrastructure assets on repairs and maintenance of those assets. This benchmark has not been achieved. Nearly half of all municipalities spent 1 per cent or less on repair and maintenance costs on their infrastructure assets (AGSA, 2022).

Figure 5.7 below shows that in 2021, Steve Tshwete received approximately R188.9 million in infrastructure-related grants. Yet, due to either spending inefficiencies or missing data (or both), records show that no grant funding was actually spent. In Joe Morolong, R146.1 million was received, and only R41.1 million was spent. Mere financial assistance is insufficient, as shown by the underspending on conditional grants, largely due to capacity-related constraints and lack of intergovernmental coordination at the local government level.

Figure 5.7: Total infrastructure grant allocation vs spending, 2021/2022



Source: MFMA section 71 reports

The local government audit findings suggest that the same weaknesses persist year after year. Infrastructure projects are not implemented, and infrastructure assets are not appropriately managed and are unmaintained, negatively impacting service delivery outcomes (Auditor-General South Africa, 2022). Underspensing and improper spending of municipal infrastructure grants continue to occur due to a variety of internal and external weaknesses, such as poor planning and contracting, poor project management, lack of technical capacity, inefficiencies in the procurement system and lack of intergovernmental coordination in managing and delivering infrastructure projects (Financial and Fiscal Commission, 2019).

5.4.6 Regression analysis

The quantitative analysis begins with a regression analysis of LED and selected conditional grants to ascertain the existence of a relationship between these variables. For the purpose of this study, category C municipalities were excluded from the analysis as this category of municipalities are exempt from conditional grant allocations, especially districts that are not water services providers.

In the first model, we provide the relationship between LED and the selected conditional grants. The second model will then relate LED and employment. It should be noted that due to data constraints and differences in grants that accrue to the respective municipal categories, the authors were prompted to select common grants that accrue to municipalities in each of the municipal categories; as such, not all conditional grants to municipalities are analysed in this study.

Model 1: Local economic development and infrastructure spending

$$Z_{it} = \alpha + \beta_1 X_{it} + \mu_i + \tau_t + \varepsilon_t \dots\dots\dots (1)$$

Where:

- β represents slope coefficients of municipal grants
- X represents municipal grants
- Z represents LED
- μ represents fixed effects
- τ represents factors that can change overtime
- ε is an error correction term

Table 5.2 provides the estimation results of the impact of municipal unconditional grants spending on LED. The table provides the estimation parameters of the independent variables, the relevant t-statistics, and an indication of the statistical significance of the estimated coefficients.

For secondary cities, the results reveal that a one per cent increase in LED will raise employment by a mere one per cent. The results further reveal that a one per cent increase in The Integrated National Electrification Programme (INEP). will raise employment by 0.01 per cent while increasing the MIG will lead to a marginal increase of 0.06 per cent on employment. For large towns, the results are somewhat positive. The results reveal that raising LED will lead to an eight per cent increase on employment while raising the MIG and the INEP have a marginal impact on employment. (0.01 per cent and 0.04 per cent respectively).

Table 5.2: Impact of grant spending on LED (Metropolitan municipalities)

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Intercept	650713.764	126720.0379	5.13505026	9.9769E-05	382079.2841	919348.2439	382079.2841	919348.2439
ICDG	0.013700745	0.005255873	2.6067496	0.01907739	0.002558792	0.024842698	0.002558792	0.024842698
INEP	-0.00558513	0.014985404	-0.3727049	0.71425921	-0.03735277	0.026182504	-0.03735277	0.026182504
NDPG	0.007592414	0.009754486	0.778351	0.44772056	-0.01308617	0.028271	-0.01308617	0.028271

Source: Commission's calculations

The estimated coefficients show the marginal impact of a 1 per cent increase in the independent variables on LED. The table shows that for metropolitan municipalities, the selected grants have a marginal impact on LED. More specifically, the Integrated City Development grant (ICDG) raises LED significantly by 1.3 per cent. the INEP Grant and the National Development Partnership Grant (NDPG) raise LED by 0.5 per cent and 0.7 per cent respectively although the impact is not statistically significant.

Table 5.3: Impact of grant spending on LED (Local municipalities)

		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
B1	Intercept	70842.56813	8797.714296	8.052383351	6.71356E-10	53061.72427	88623.4119	53061.72427	88623.411
	INEP	0.00094788	0.000771997	1.227828112	0.226687987	-0.000612384	0.00250814	-0.00061238	0.0025081
	MIG	0.00015693	0.000187601	0.836513514	0.407835834	-0.000222224	0.00053608	-0.00022222	0.0005360
B1	Intercept	62594.41252	14475.52295	4.324155523	6.95025E-05	33547.15064	91641.6744	33547.15064	91641.674
	INEP	-0.00361523	0.003005293	-1.202954679	0.23444248	-0.009645792	0.00241533	-0.00964579	0.0024153
	MIG	-0.00051412	0.00050074	-1.026737806	0.309296502	-0.001518937	0.00049067	-0.00151893	0.0004906

Source: Commission's calculations

Table 5.3 above shows that for secondary cities (B1), a one percent increase in the INEP will raise LED by 0.36 per cent. This is statistically insignificant at the one per cent level. Furthermore, the results show that a one per cent increase in the MIG will raise LED by a mere 0.01 per cent. This marginal increase is also insignificant at the one per cent level given a P-value of 0.4 per cent. The results provided by table 5.3 suggest that the INEP and the MIG have little to no impact on LED.

The results are negative and statistically insignificant for large towns (B2). This suggests that raising the INEP and the MIG tends to cripple LED. It should be noted, however, that the marginal impacts of such grants on LED may be attributable to the fact that municipalities generally underspend on conditional grants and as a result, the intended objectives of these grants in the local government sphere cannot be realised.

Below, the impact of LED on employment is considered. It is important to explore this relationship and the channels through which LED may impact on employment, as this will better inform how resources should be allocated. The econometric model is specified as follows:

Model 2: Local Economic Development & Employment

$$Y_{it} = \alpha + \beta_1 Z_{it} + \beta_2 X_{it} + \mu_i + \tau_i + \epsilon_i \dots \dots \dots (2)$$

Where:

- Z represents LED
- Y is employment
- β represents slope coefficient explanatory variable
- ϵ represents fixed effects
- τ represents factors that can change overtime
- ϵ is an error correction term

Table 5.4. below provides the estimation results of the impact of LED on employment. The table provides the estimation parameters of the independent variables, the relevant t-statistics, and an indication of the statistical significance of the estimated coefficients. The estimated coefficients show the marginal impact of a one per cent increase in the independent variables on employment. The table results reveal that for metropolitan municipalities, a one per cent increase in LED leads to a 137 per cent increase in employment, although the impact is statistically insignificant with a probability value of 1.79. Furthermore, the table reveals that the IDG, NDPG, and the Public transport network grant (PTNG) all have a negative and statistically insignificant impact on employment. The ICDG, however, has a positive, but marginal, impact on employment.

For secondary cities, the results reveal that a one per cent increase in LED will raise employment by a mere one per cent. The results further reveal that a one per cent increase in the INEP will raise employment by 0.01 per cent while increasing the MIG will lead to a marginal increase of 0.06 per cent on employment. For large towns, the results are somewhat positive. The results reveal that raising LED will lead to an eight per cent increase on employment while raising the MIG and the INEP have a marginal impact on employment (0.01 per cent and 0.04 per cent respectively).

Table 5.4: Impact of LED on employment

		Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95,0%	Upper 95,0%
Metros	Intercept	-22422.4702	30070.82331	-0.7456553	0.46256413	-84233.933	39388.9923	-84233.933	39388.99233
	ICDG	-0.00025429	0.001240297	-0.2050238	0.83915019	-0.0028038	0.00229518	-0.0028038	0.002295177
	INEP	0,008550259	0.003228555	2.64832351	0.01356767	0.00191387	0.01518665	0.00191387	0.01518665
	NDPG	-0.00323855	0.002119429	-1.5280321	0.13858015	-0.0075951	0.00111799	-0.0075951	0.001117993
	PTNG	-3.97276E-0	0.000169547	-0.2343162	0.81657489	-0.0003882	0.00030878	-0.0003882	0.000308782
	LED	1.379535078	0.042870159	32.1793783	1.7902E-22	1.2914142	1.46765595	1.2914142	1.467655953
B1	Intercept	28249.27731	12615.02513	2.23933579	0.03076157	2753.36047	53745.1941	2753.36047	53745.19414
	INEP	-0.00015440	0.000703894	-0.2193609	0.82748446	-0.001577	0.00126822	-0.001577	0.001268216
	MIG	0.000687201	0.000169246	4.06037139	0.0002216	0.00034514	0.00102926	0.00034514	0.001029259
	LED	0.94091944	0.141054429	6.6706125	5.407E-08	0.6558378	1.22600108	0.6558378	1.226001076
B2	Intercept	49986.07437	7035.247954	7.10509064	3.3642E-09	35868.8165	64103.3322	35868.8165	64103.3322
	INEP	0.000483371	0.001226756	0.39402364	0.69517481	-0.0019783	0.00294504	-0.0019783	0.002945038
	MIG	0.000122789	0.00021337	0.57547313	0.56745342	-0.0003054	0.00055095	-0.0003054	0.000550947
	LED	0.08579942	0.059411652	1.44415141	0.15469494	-0.0334188	0.20501762	-0.0334188	0.205017622

Source: Commission's calculations

Summary of regression analysis

Using the public finance dataset on South Africa's municipalities, this section examined the responsiveness of municipal infrastructure grant spending to local economic development. The main findings of the empirical analysis can be summarised as follows:

- For metropolitan municipalities (A), the ICDG provides growth incentives for LED. The NDPG also appears to raise LED, although the impact is very marginal and insignificant. Contrarily, the INEP grant appears to be impacting LED negatively.
- For secondary cities (B1), the MIG and INEP both appear to have a positive impact on LED, although the impact is statistically insignificant.
- For large towns (B2), the INEP and MIG both impact LED negatively.
- For rural municipalities (B3 and B4), the MIG impacts LED negatively.
- Lastly, the second model reveals that LED has a positive impact on employment for all the municipal categories, though statistically insignificant.

The findings reflect the underperformance of the above-mentioned grants in the local government sector and support the findings presented in the qualitative analysis. As such, it can be concluded that LED cannot be promoted whilst municipalities continue to underspend on infrastructure grants. The same can be said about employment as observed in the results presented in the second econometric model. It can be said, therefore, that underspending on infrastructure grants undermines LED and employment as citizens are robbed of resources that could otherwise be used to stimulate local economies. It is important, however, to investigate the causes of this underspending. An array of literature explains municipalities' inability to perform the roles and responsibilities as set out in the Constitution.

Research findings have shown that municipalities have failed to deliver on their constitutional mandate due to insufficient capacity, inadequate financial resources, and the lack of efficient utilisation of infrastructure assets including the maintenance and installation of infrastructure (Schalkwyk, 2008). Monkam (2014) stated that the challenges faced by municipalities are largely because of inadequate revenue collection, fraud and corruption, financial mismanagement, the legacy of the past and lack of human capital.

5.5 CONCLUSION

Local government is placed at the forefront of the developmental agenda to improve the living standards of citizens. Municipalities have a wide range of powers and responsibilities in terms of the Constitution. Municipalities are empowered to generate their own revenue to fulfil their service delivery mandate. Municipalities also receive funding through the intergovernmental transfer system so that they can drive LED initiatives. This research attempted to use ArcGIS mapping as a tool for geospatial analysis to enhance our understanding of spatial inequalities between different types of municipalities, and to analyse sources of municipal revenue and spending in that context. This research also conducted an empirical analysis of LED by focusing specifically on infrastructure grant spending at the local government level and its impact on growth and employment.

In terms of the municipal revenue base, the findings from the two case studies illustrate transfer dependency amongst smaller, rural municipalities. In contrast, larger local municipalities with a greater tax base can generate a substantial portion of their revenue from electricity sales. The research showed that property rates are an important source of revenue for both types of municipalities, despite geographic and socioeconomic differences. The expenditure analysis reinforces the view that the bulk of municipal spending is administrative, on employee compensation rather than prioritising basic services. Underspending on infrastructure grants allocated is significant due to varying capacity constraints across municipalities.

Fiscal policy, through its transfers to local government via the mechanism of conditional grants, is aimed at unlocking the country's growth potential through infrastructure investment but has been largely unsuccessful in doing so. It appears that financial assistance alone is insufficient for LED, due to capacity-related constraints

and lack of intergovernmental coordination at the local government level. Furthermore, the analysis revealed that smaller, rural municipalities predominantly receive funding to address backlogs in service delivery and water infrastructure, while larger more urban municipalities receive funding for a much wider scope of local developmental objectives, pointing to lack of coherence in funding mechanisms to drive LED.

Accelerated and Shared Growth Initiative for South Africa (ASGISA) identified infrastructure as one of the key aspects hampering the country's growth, and one of the reasons why this policy was unsuccessful was largely due to capacity issues relating to the rolling out of infrastructure projects. The findings from the expenditure review and the regression analysis show that lack of spending on infrastructure is still a prominent factor in the local government sphere, with significant underspending occurring annually over the review period. According to Nel and Rogerson (2005), several aspects that need to be addressed to improve the implementation of LED at a local level are improved skills, increased community involvement and improved monitoring and evaluation. One of the main reasons for the failure of LED is that it is not embedded in municipalities. The literature review showed a lack of LED units in municipalities, and if municipalities had units, they had limited funding available allocated to LED. As such, municipalities do not have sufficient economic strategies in place to address the issues of inequality, poverty and unemployment (SACN, 2004).

While the 1998 White Paper acknowledged the key role that intergovernmental fiscal transfers would play in assisting less affluent and more rural municipalities in fulfilling their transformative role of driving LED, the White Paper did not foresee that decades on, many municipalities would still lack the capacity to implement critical infrastructure for basic service delivery. In many ways, the policy objectives of the 1998 White Paper have not been realised. The framework is not sufficiently differentiated and thus does not adequately accommodate the unique challenges faced across different types of municipalities.

5.6 RECOMMENDATIONS

The Commission makes the following Recommendations:

1. *The Commission recommends that, to overcome persistent challenges municipalities face in the context of the rapidly changing economic environment, the Minister of COGTA and the Minister of Finance should critically review the local government fiscal framework. A differentiated approach is needed to ensure the policy is well-tailored to overcome unique issues individual municipalities face. To achieve this, the fiscal framework may need to be radically, rather than incrementally, reconfigured.*

The assumptions of the 1998 White Paper are no longer credible and need to be reviewed. Revenue sources vary significantly across local municipalities, and smaller, rural municipalities continue to rely heavily on intergovernmental fiscal transfers to fund their operations. This is unsustainable, given poor economic growth forecasts over the medium term and the fiscally constrained economic environment. To foster more sustainable revenue streams and reduce transfer dependency, the fiscal policy framework for local government needs to be better equipped to accommodate the significant spatial inequalities across different types of municipalities.

A new fiscal policy framework for local government should adequately accommodate the unequal distribution of own revenue across different types of municipalities by being sensitive to disparities in revenue-raising capabilities across rural and urban municipalities, internal capacity constraints and spending inefficiencies that persist in the local government sphere. A differentiated approach is needed to ensure the policy is well-tailored to overcome unique issues individual municipalities face. Geospatial analysis, such as ArcGIS, may inform each municipality's unique economic, social and geographical circumstances to properly understand the nature and extent of spatial inequalities to identify logically sound opportunities for optimising revenue collection. Geospatial analysis can assist with identifying potential areas of economic development or sectoral growth, given the specific circumstances in which a given municipality finds itself

2. *Careful attention must be given to the funding mechanism of conditional grants and the Commission thus recommends that COGTA and National Treasury develop an appropriate funding mechanism or funding plan in a targeted and phased approach, which enhances the capacity of municipalities to spend conditional grants effectively. The DDM must be strengthened and financed for local government to fulfil its developmental role.*

The research has shown that municipalities have sufficient legislation and policy frameworks to guide them in meeting the country's developmental goals. Yet, in many respects, local government has failed to fulfil its transformative role in driving LED through investing in new infrastructure and maintaining existing infrastructure. Municipal grant performance has been consistently low, with municipalities achieving below 60 per cent spending on these priorities annually. Gross underspending of infrastructure grants hamper service delivery and LED.

In addition, infrastructure diversity is still only focused in urban areas, with many local municipalities only receiving MIG funding geared towards eradicating backlogs. Smaller, more rural municipalities have received minimal assistance towards LED. The current funding of capital projects is still localised in urban areas, implying that there is a focus on financing LED in areas which already have a stronger revenue base and greater revenue-generating capabilities to fund many of their LED projects. This trajectory will continue the migration patterns to urban areas for better work prospects, due to the lack of opportunities in smaller, rural areas putting further pressure on service delivery.

Policy intervention is urgently required to increase capacity in spending at the local government level. In this regard, the DDM needs to be strengthened for better intergovernmental coordination. A collaborative, integrated approach with relevant national departments is needed to devise a funding model that enhances local government's capacity to overcome the non-performance of conditional grant spending.

3. *The Commission recommends that any future framework development on LED should include the aspect of skills development through the revitalisation of mentorship/apprenticeship programmes to address the country's unskilled labour issue.*

The Department of Cooperative Governance and Traditional Affairs develops the National LED Framework, which provides the LED strategy and implementation. The framework is for a period of ten years and provides a guide to various sectors as to their role in innovative-led LED. The research has shown a number of reasons why LED has failed to achieve its desired outcomes. Researchers have indicated that one of the key issues in South Africa is the skills deficit. For the successful implementation of LED strategies, the skill capacity issue must be addressed.

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APPENDIX A:

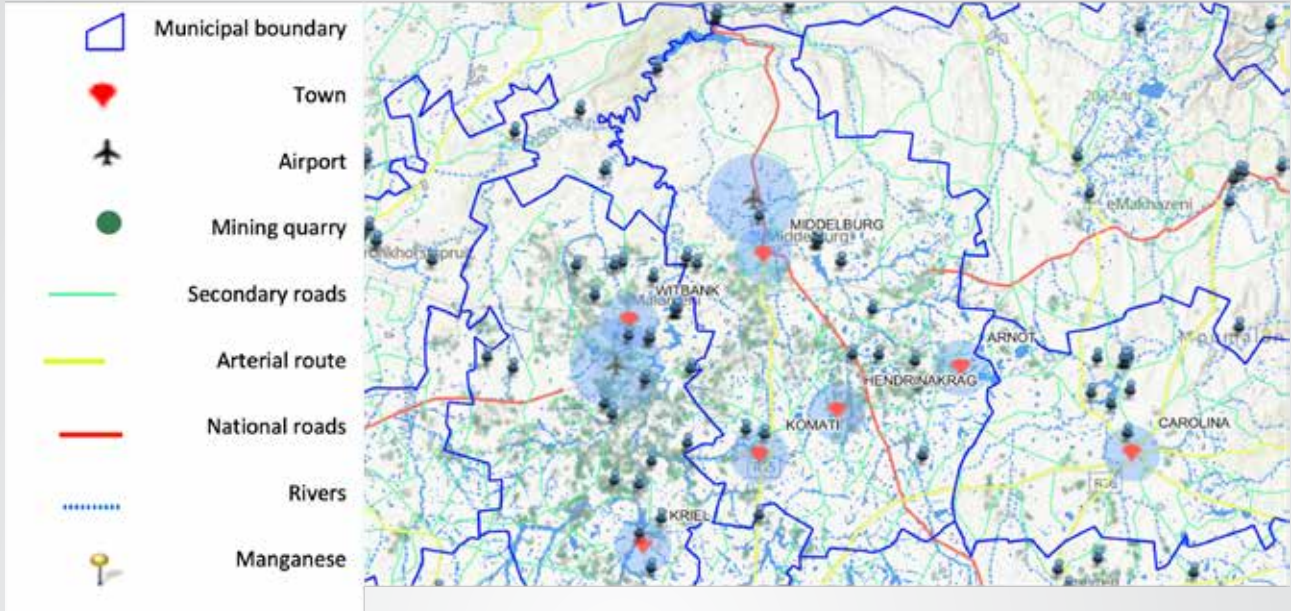
PESTLE Analysis

Political	Economic	Social
<ul style="list-style-type: none"> Political unrest - ongoing rivalry within parties and coalition government hampering service delivery. Hung councils Lack of governance structures within municipalities 	<ul style="list-style-type: none"> Low economic growth Unfunded budget Municipalities in financial distress High inflation and interest rates High cost of servicing debt Increase in fruitless and wasteful expenditure 	<ul style="list-style-type: none"> High unemployment Culture of non-payment High levels of crime, drug abuse and alcohol dependency High level of dependency for social assistance - municipal level i.e., indigent support Poor community involvement
Technological	Legal	Environment
<ul style="list-style-type: none"> Structural unemployment-lack of skilled labour Lack of capacity at a municipal level Lack of leadership and management Technological and infrastructure inefficiencies 	<ul style="list-style-type: none"> Section 152 of the Constitution The NDP 2030- highlights the vision of economic development The NSDP identified five principles that government needs to uphold; to create a conducive environment and alleviate poverty The vision of the policy is to provide access to support and development services to those who were excluded in full participation of the economy The LED framework aims to support the development of sustainable local economies through integrated government action. White Paper on Local Government (1998) identified a municipality as a developmental local government. Chapter 5, section 23 (1) of the Act makes provision for municipal planning. Section (24) urges municipalities to align their development plans and strategies with those of other organs of state. Section 25 of the Act is specifically adapted for municipal Integrated Development Plan (IDP). 	<ul style="list-style-type: none"> Climate change Lack of consistent energy supply Corruption and fraud Complexities / red tape /barriers to entry Poor rail and port services

Source: Author's Compilation

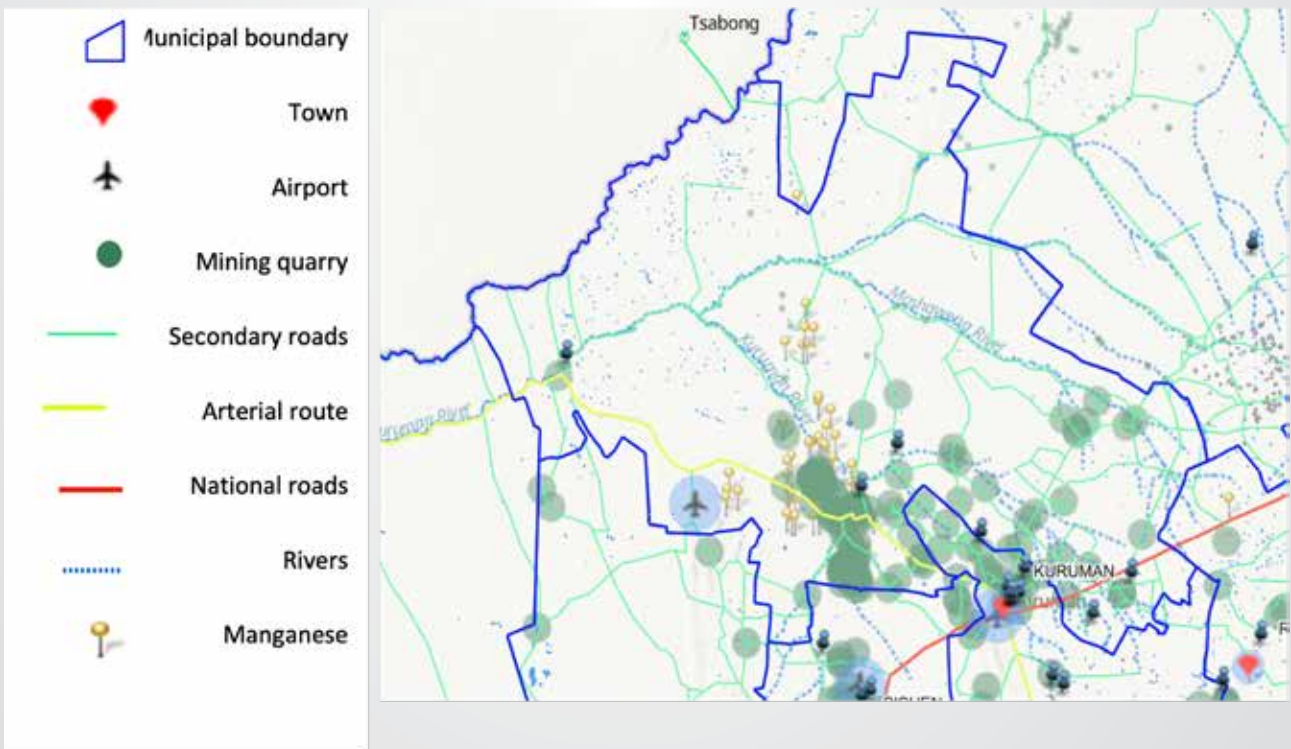
APPENDIX B: Geographical profile

Figure 5.8: Municipal map of key economic indicators in Steve Tshwete



Source: ArcGIS

Figure 5.9: Municipal map of key economic indicators in Joe Morolong

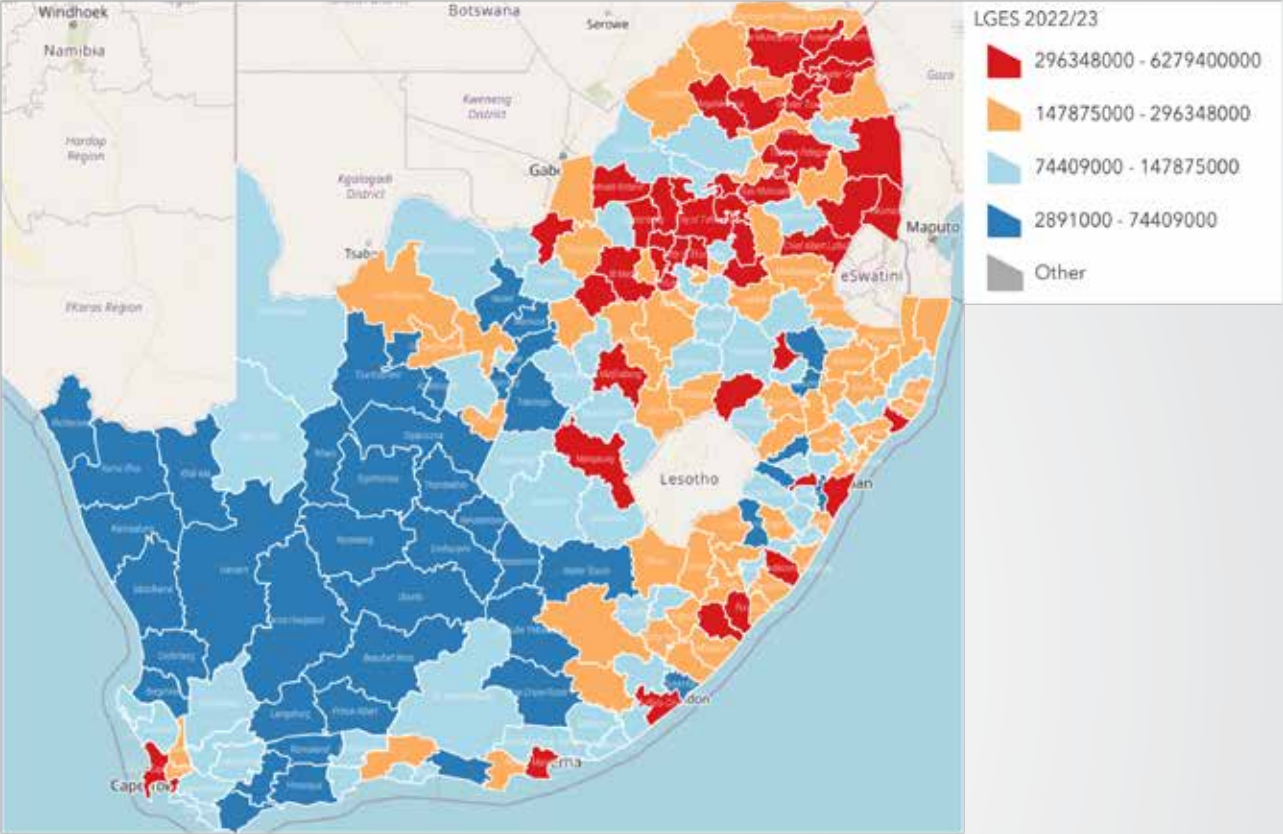


Source: ArcGIS

APPENDIX C:

Local government equitable share allocations

Figure 5.10: Local government equitable share allocations 2022/23



APPENDIX D: Indigent households

Figure 5.11: Household poverty across local municipalities in Mpumalanga

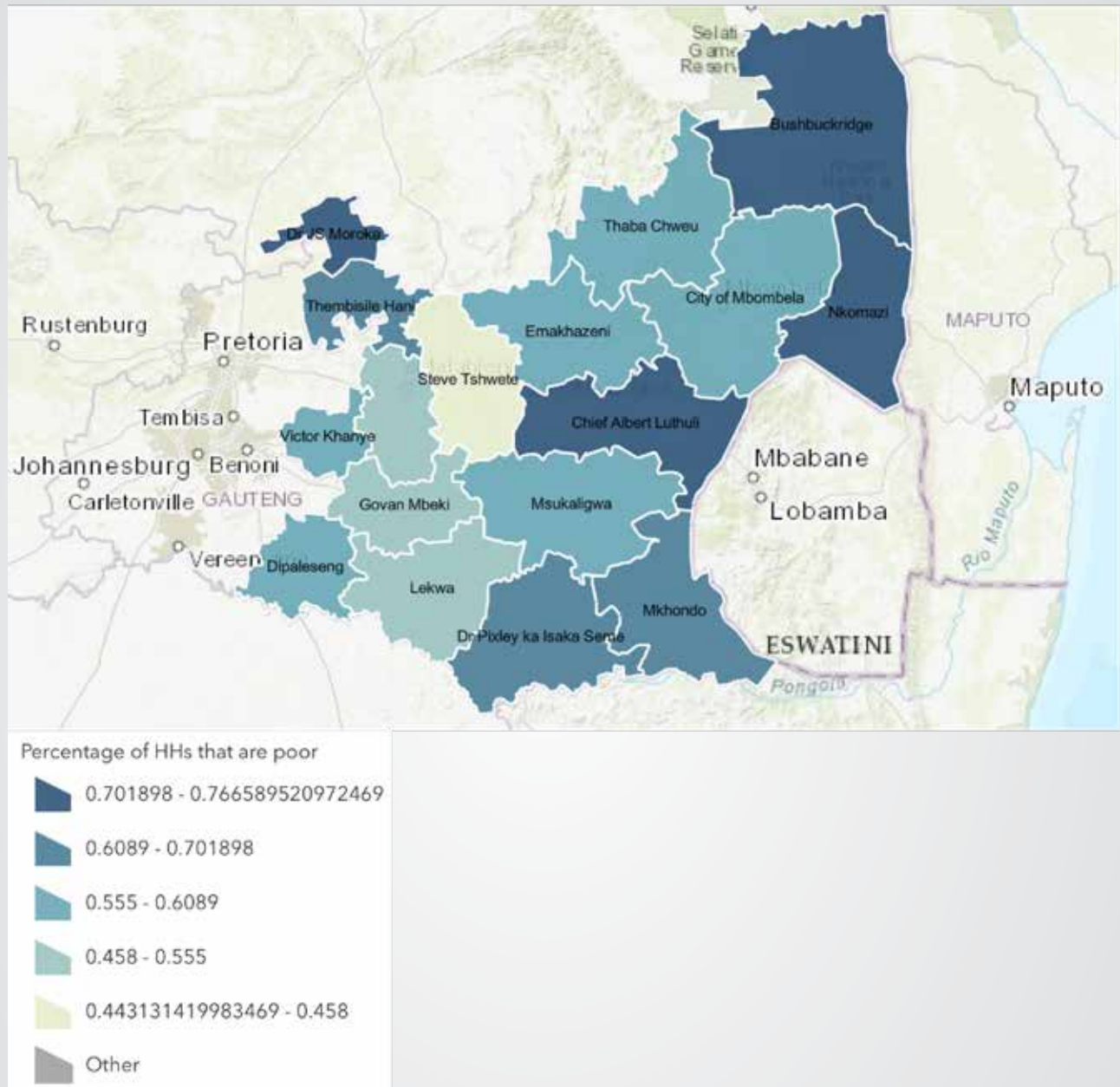
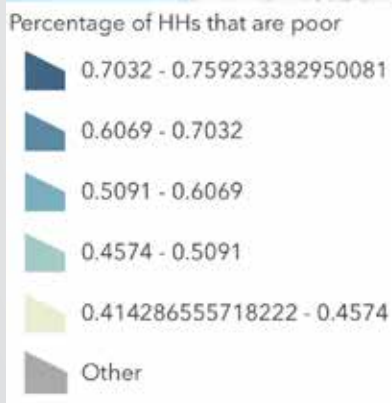


Figure 5.12: Household poverty across local municipalities in Northern Cape



APPENDIX E:

Basic service delivery

ACCESS TO WATER

Figure 5.13: Household access to water in Steve Tshwete

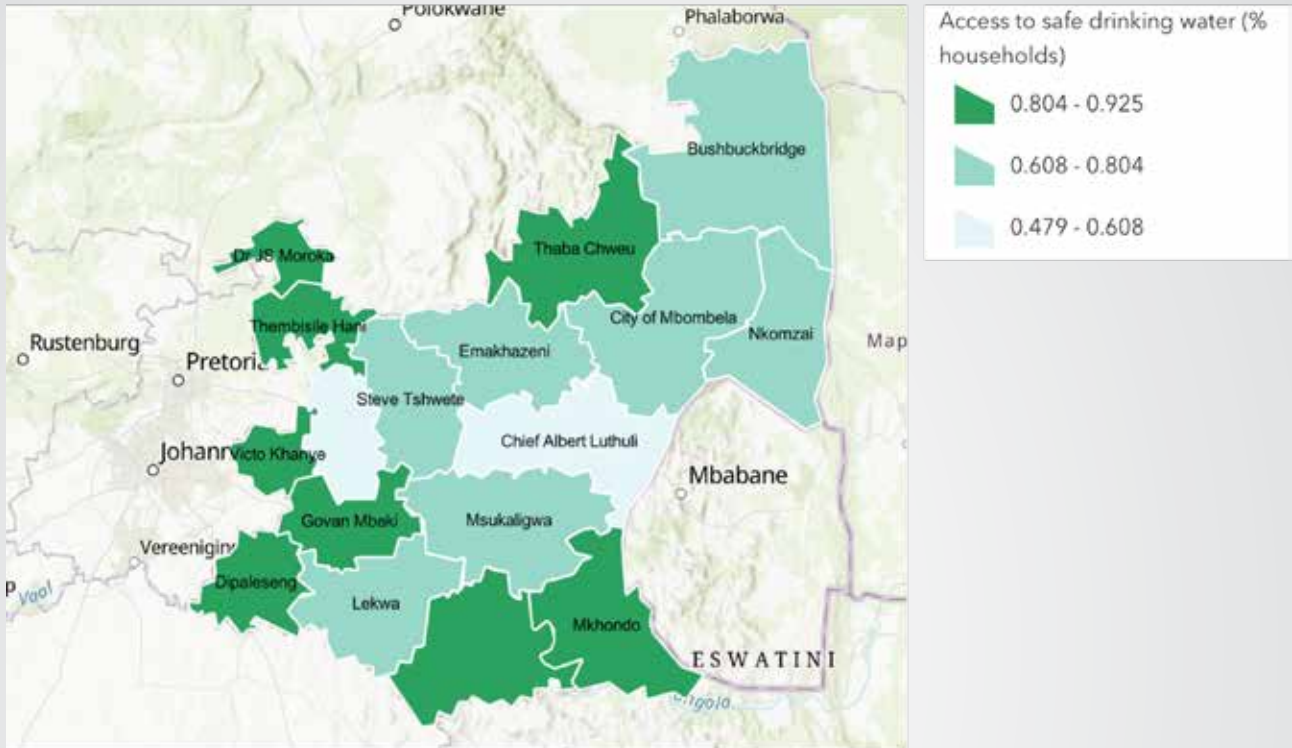
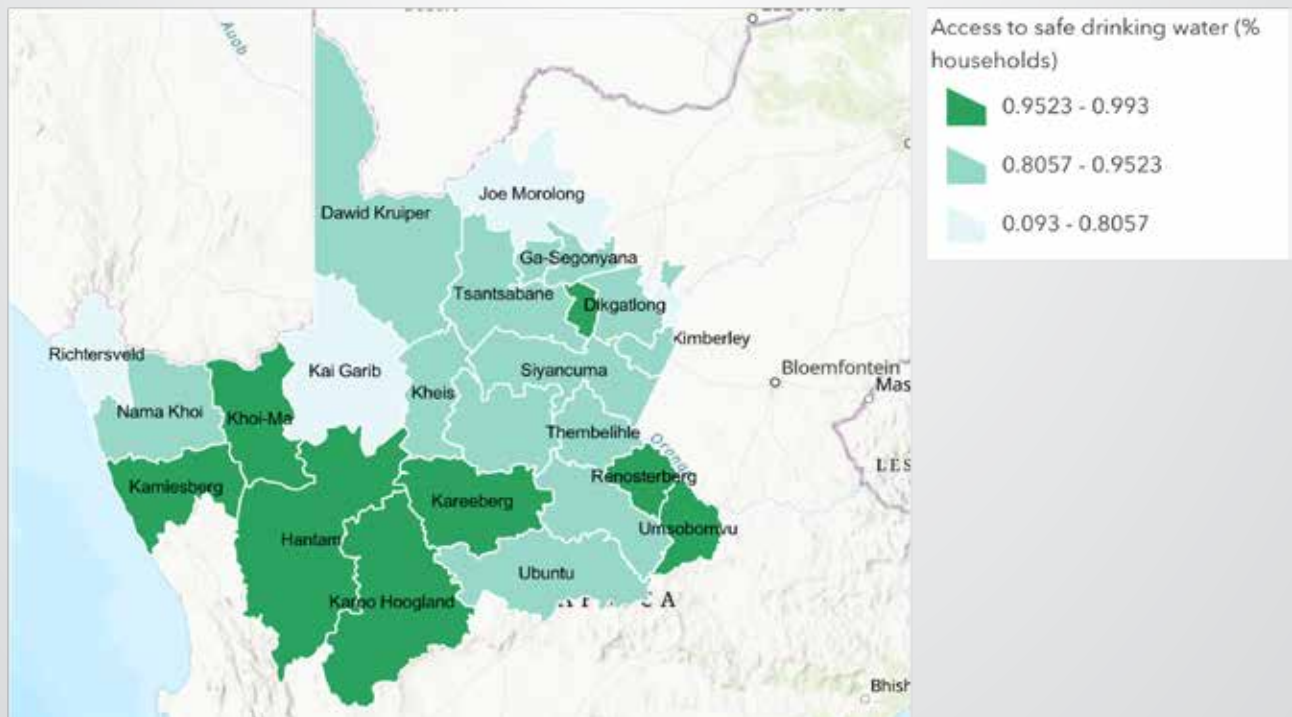


Figure 5.14: Household access to water in Joe Morolong

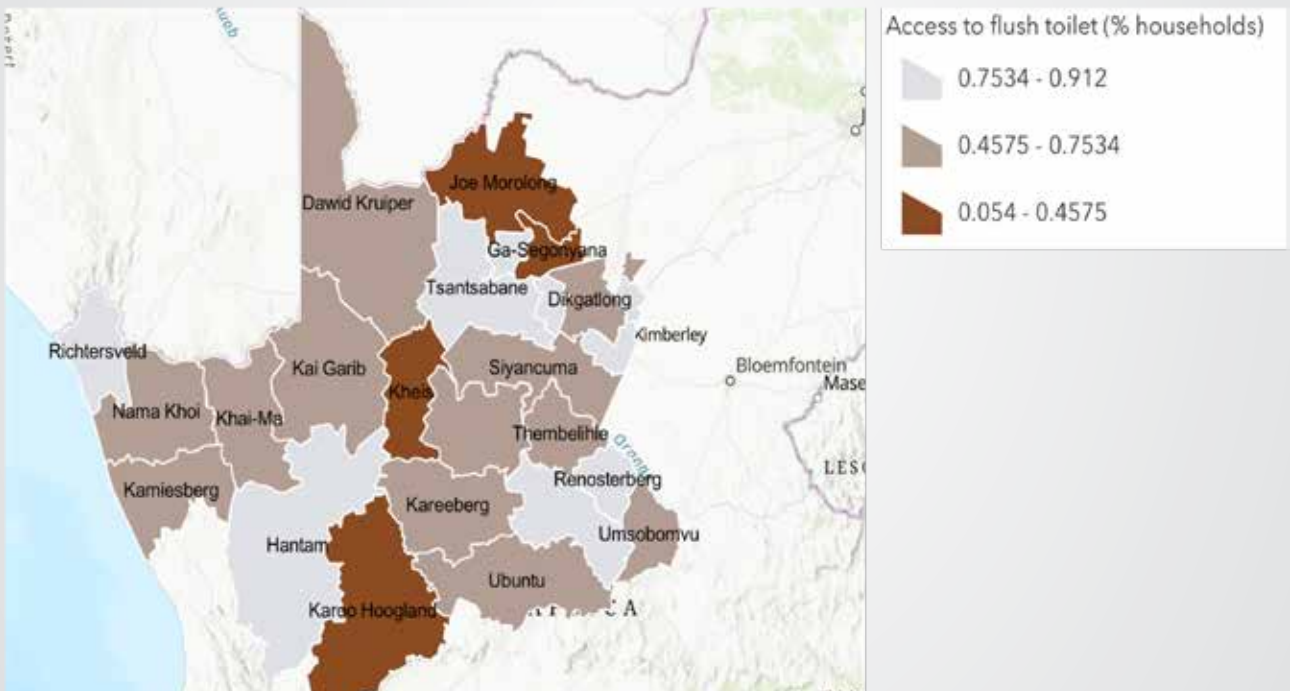


SANITATION

Figure 5.15: Household access to sanitation services in Steve Tshwete



Figure 5.16: Household access to sanitation services in Joe Morolong



ACCESS TO ELECTRICITY

Figure 5.17: Provision of electricity in Steve Tshwete

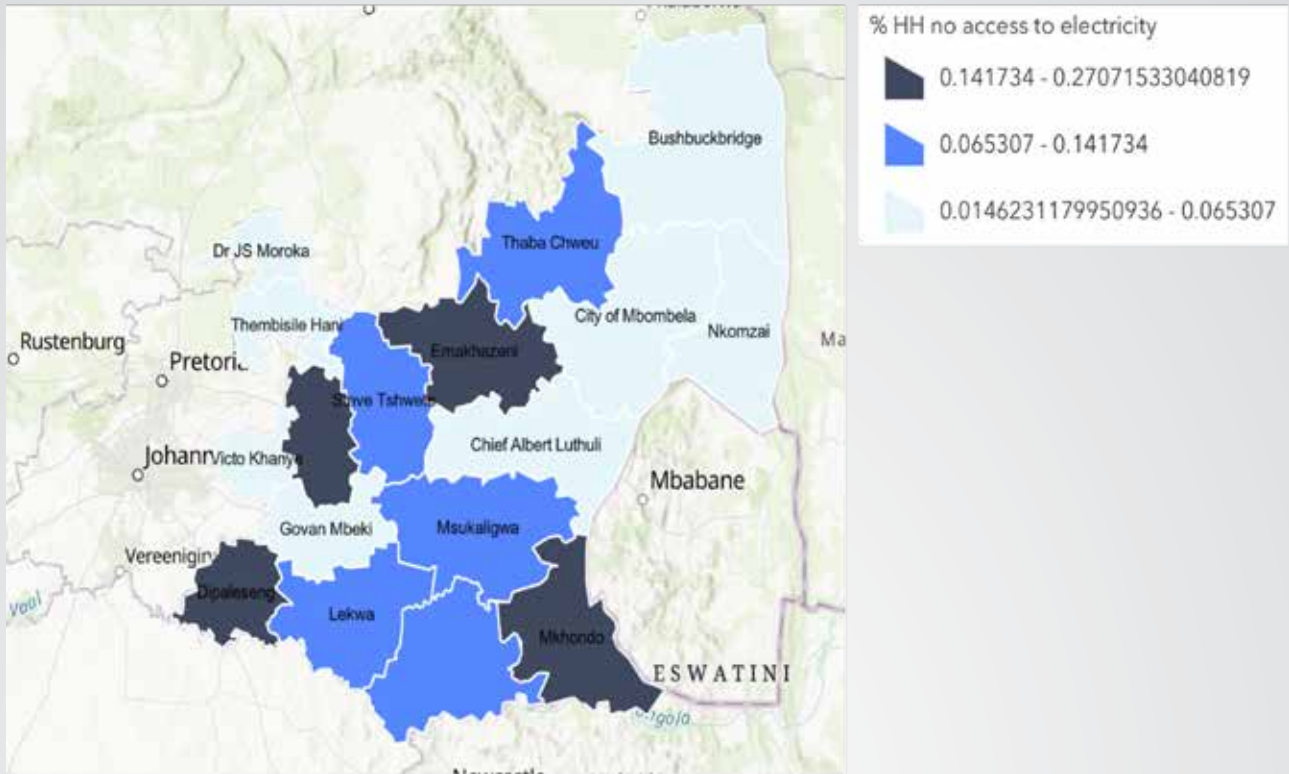
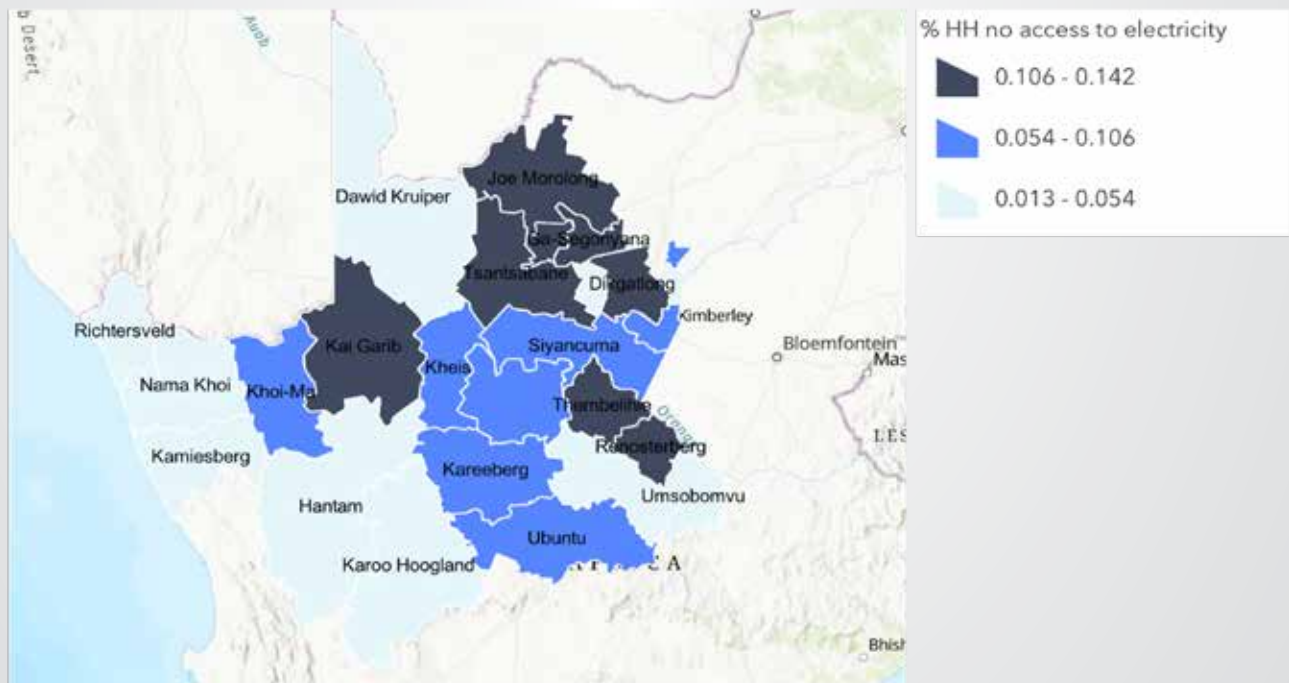


Figure 5.18: Provision of electricity in Joe Morolong



REFUSE

Figure 5.19: Provision of refuse services in Steve Tshwete

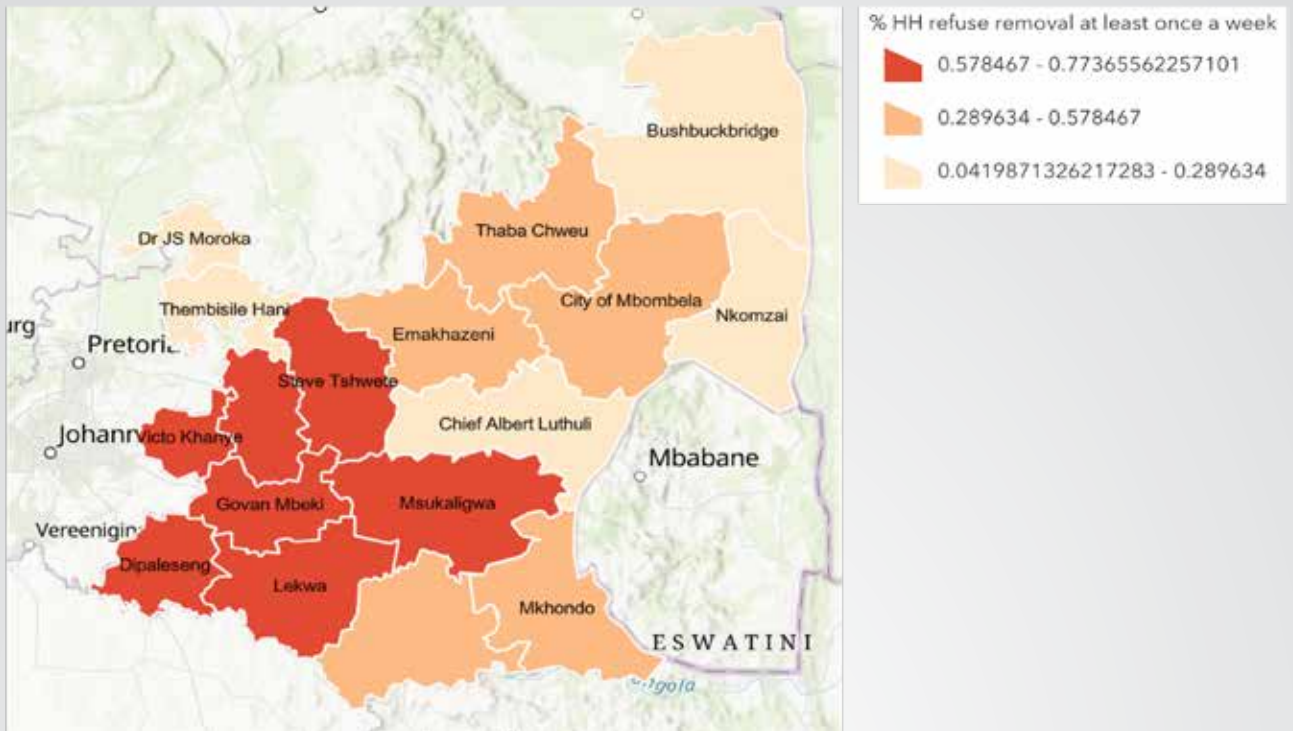
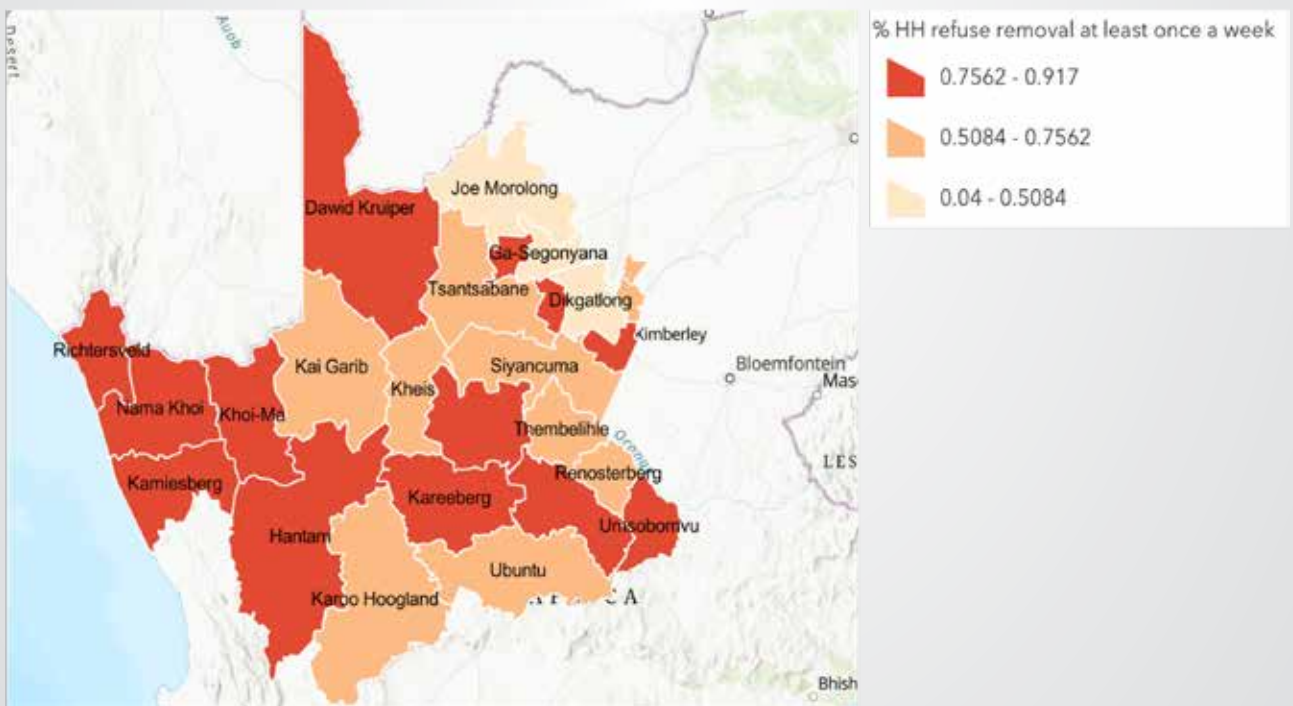


Figure 5.20: Provision of refuse services in Joe Morolong





CHAPTER 6:

Municipal Cost Recovery and the Affordability of Basic Services

6.1 INTRODUCTION

Municipal cost recovery is important for the sustainability and maintenance of services and is an important indicator of the overall financial health of municipalities. Municipalities that do not recover the costs of providing services are characterised by low revenue collection rates, low infrastructure maintenance levels, high distribution losses, and low levels of service provision (National Treasury, n.d.). Without recovering the costs of providing services, municipalities will not have the funds required to maintain and invest in infrastructure upgrades and renewal for future service provision.

Cost recovery is broadly achieved when average tariffs align with the average cost of services (Huenteler et al., 2022). Municipalities largely rely on tariffs to obtain the revenue required for the provision of services, however, a significant challenge affecting them is inadequate revenue collection, primarily owing to widespread non-payment (Fjeldstad, 2004). Due to non-payment, municipal consumer debt has escalated. As of December 2022, aggregate municipal consumer debt amounted to R305.8 billion, of which household debt accounted for 71.1 per cent (National Treasury, 2023). As a result of rising consumer debt, several municipalities are unable to settle their bills to service providers such as Eskom and water boards. Thus, the magnitude of municipal consumer debt is a serious concern.

Municipalities generally use historical costs as a guide for setting tariffs and adjust tariffs incrementally or with inflationary increases (National Treasury, n.d.). However, as municipal infrastructure deteriorates and maintenance costs rise, historical costs are no longer a reliable guide for municipal budgeting and tariff determination. Consequently, there is a growing gap between the actual cost of providing services and the revenue generated from services. Historically larger municipalities have typically generated surpluses on electricity, water, and sanitation services, enabling them to subsidise some of their services. These surpluses have been confronted with increasing pressure over the years (Financial and Fiscal Commission, 2020). Electricity surpluses will be eroded further by the loss of revenue due to heightened loadshedding and the migration from the grid to alternative energy sources.

Declining and stagnant own revenues impact municipal sustainability. Previous research from the Commission noted that various factors contribute to declining revenues including slow economic growth, increasing unemployment, the inability of customers to pay for services, poor revenue collection, and the “culture of non-payment” (Financial and Fiscal Commission, 2020). The decrease or stagnation in own revenues has led to an increasing dependence on transfers. However, transfers are also under pressure owing to fiscal consolidation measures and slow economic growth. Furthermore, even with transfers several municipalities still struggle to fulfill their increasing expenditure responsibilities.

National Treasury notes that municipalities may struggle to recover the costs of providing services due to tariffs being unaffordable (National Treasury, n.d.). It is argued that if tariffs are too high, affordability will decrease, which may adversely impact cost recovery (Marah, Martin, Alence, & Boberg, 2003). Recently, affordability has been impacted by high inflation due to the global supply chain disruptions caused by the COVID-19 pandemic and the Russia-Ukraine conflict. These economic shocks have increased the cost of living and exacerbated poverty levels. The Eskom tariff increase of 18.65 per cent approved by the National Energy Regulator of South Africa (NERSA) for the 2023/24 financial year will aggravate the cost-of-living crisis by impacting the affordability

of electricity. Consequently, this will affect the ability of municipalities to generate revenue from electricity services (South African Local Government Association, 2023). Unaffordable services worsen the issue of non-payment, which in turn negatively impacts revenue collection, cost recovery, the financial viability of municipalities, and sustainable service provision.

6.2 LITERATURE REVIEW

6.2.1 Defining cost recovery

Literature broadly defines municipal cost recovery as the ability to recover the costs involved in the provision of services through tariffs, while also allowing for some subsidisation (Marah, Martin, Alence, & Boberg, 2003; Calfucoy, Cibulka, Davison, Hinds, & Park, 2009; Brown, 2005). While all costs must be recovered through tariffs, there are instances where it may be required to recover less than the full cost of services. National Treasury's Costing Methodology for Local Government guideline notes that under-recovery of the full cost can be justified through policy, for example, to account for affordability considerations and where support is provided to indigent households (National Treasury, n.d.). Nonetheless, municipalities must know the full cost of providing services so that tariff decisions are made with complete knowledge of the cross-subsidy needed and provided from other sources of revenue (National Treasury, n.d.).

6.2.2 Cost reflective tariffs

Based on a narrow definition, cost-reflective tariffs reflect the actual cost of providing services with no dependence on subsidies (National Treasury, 2019). In South Africa, some dependence on subsidies is accepted. National Treasury's tariff-setting methodology notes that municipalities generally apply two types of subsidies (National Treasury, 2019). The first type of subsidy is external operating grants and transfers that are used to subsidise specific services and customer categories. The second type of subsidy is cross-subsidisation. There are two ways in which municipalities can cross-subsidise. The first involves cross-subsidising between services, where municipalities accept a deficit on a service while generating a surplus on another service and using the surplus generated to cover the deficit. The second method involves cross-subsidising between customer categories within a service, where a subsidy is provided to a specific customer category, such as indigent or low-consumption households. This is done through the Inclining Block Tariff (IBT) tariff structure, where customers who consume high volumes of electricity or water are charged more per unit consumed compared to households that consume low quantities of these services.

As a result of cross-subsidisation, tariffs levied on some customer categories or services will be lower than the cost of providing the service, while tariffs levied on other customer categories or services will be above cost. It should be noted that decisions regarding cross-subsidisation are at the discretion of the municipal council and are detailed in municipalities' tariff policies.

In terms of legislation related to tariff setting, section 74(2) of the Municipal Systems Act 32 of 2000 states that tariffs should "reflect the costs reasonably associated with rendering the service" (Municipal Systems Act, 2000). Setting cost-reflective tariffs ensures that municipalities can raise sufficient revenue to fully cover costs, sustainably provide services, and invest in the infrastructure needed for local economic development.

In addition to the Municipal Systems Act, various government departments regulate tariffs for municipal services including NERSA; the Department of Water and Sanitation (DWS); and the Department of Environmental Affairs (DEA).

National Energy Regulator of South Africa (NERSA)

Section 4(a)(iii) of the National Energy Act, 2004, states that the National Energy Regulator of South Africa (NERSA) is required to regulate electricity prices and tariffs (National Energy Act, 2004). NERSA decides on a

suitable tariff guideline increase annually, which is announced to municipal distributors as a guide to determine their annual electricity tariffs (NERSA, 2022/23). The guideline increase helps municipalities prepare their budgets. In addition, NERSA assesses tariff benchmarks and recommends new benchmarks that should be used in the assessment of municipal tariff applications.

As noted in NERSA's Tariff Guideline Paper 2022/23, electricity tariffs should accurately reflect the cost of providing electricity to ensure the financial viability of the electricity sector. For this to be achieved, tariffs should be set at a level that will ensure that the utility generates enough revenue to cover the full costs of providing a service, including a reasonable margin (NERSA, 2022/23). The Electricity Pricing Policy seeks to achieve a balance between the objectives of cost-reflective tariffs and affordability, particularly for low-income households.

The Electricity Pricing Policy notes that electricity distributors are required to conduct a Cost of Supply (COS) study every five years, or when substantial licensee structure changes occur, such as changes in sales volumes or changes in the customer base (NERSA, 2022/23).

Department of Water and Sanitation (DWS)

The Water Services Act No. 108 of 1997 and the National Water Act No. 36 of 1998 both regulate domestic water and sanitation in South Africa. Tariffs for water and sanitation services are determined annually by the Department of Water and Sanitation (DWS) in consultation with the National Treasury (Department of Water and Sanitation, 2017). As with electricity, the DWS (2017) norms and standards emphasise the importance of cost recovery for water and sanitation services.

The DWS norms and standards (2015, 2017) state that for both water and sanitation services, tariffs must be set such that revenue, inclusive of grants and transfers allocated to the water and sanitation services respectively, is sufficient to recover all reasonable costs associated with the operation, maintenance, refurbishment, and development of the water and sanitation services, and to recover payments needed to redeem loans obtained for the water and sanitation service over a reasonable period. In addition, the DWS (2017) norms and standards state that tariffs must be set such that a net surplus of a minimum of 6 per cent per annum is achieved for both services respectively.

Department of Environmental Affairs (DEA)

In terms of refuse services, the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) makes provision for regulating waste management in South Africa (Waste Act, 2008). The Department of Environmental Affairs (DEA) and its provincial departments are responsible for the overall implementation of the Waste Act.

The NWMS acknowledges the importance of full cost accounting as a basis for municipal financial sustainability, which is crucial for delivering refuse services efficiently and effectively (Department of Environmental Affairs, 2011). Full-cost accounting is used to determine the full cost of providing refuse services. These costs include operational and capital costs such as "collection, transportation, landfill development and closure, street cleansing, fee collection, credit control, monitoring and enforcement costs, interest payments and depreciation" (Department of Environmental Affairs, 2011).

6.2.3 Non-payment for municipal services

A significant challenge impacting cost recovery outcomes is non-payment for municipal services. Non-payment for municipal services is a widespread issue confronting municipalities across South Africa. Various reasons explain the issue of non-payment. As noted in the literature, these include the inability to pay for municipal bills due to poverty or unemployment, the absence of awareness campaigns to educate households about the importance of paying for municipal bills, dissatisfaction with service provision, the perception that

municipal workers are corrupt and mismanage municipal finances, poor governance and, maladministration by municipal workers, the culture of non-payment or entitlement, and lack of collaboration between councillors and municipal workers resulting in councillors not engaging residents about the importance of paying for services (Fjeldstad, 2004; Van Schalkwyk, 2012; Worku, 2018; Enwereji & Uwizeyimana, 2020; Enwereji, 2019).

Previous work from the Commission assessed factors impacting non-payment for property rates (Financial and Fiscal Commission, 2020). The qualitative analysis included a sample of 15 urban and rural municipalities. Factors considered to impact non-payment included poor billing and credit control systems, unaffordability and unwillingness to pay, and poor institutional capacity. In several municipalities, poor billing and credit control systems were recognised as one of the key constraints affecting property revenue collection. A major reason for inaccurate billings was due to unreliable and unavailable data.

An additional issue noted is the difficulty that municipalities have enforcing payment in areas supplied by Eskom due to the absence of enforcement mechanisms (Financial and Fiscal Commission, 2020). Municipal respondents in those areas pointed out the unwillingness of Eskom to assist with disconnections. The impact of this is that even if a municipality has an effective credit control policy in place, it cannot be implemented if the municipality is not in charge of the enforcement mechanism. The issue of affordability was listed as another constraint impacting non-payment. Respondents noted that in some instances consumers were willing to pay property rates but could not afford to do so (Financial and Fiscal Commission, 2020).

Low-income levels and subdued economic activity were noted as the main reasons impacting affordability (Financial and Fiscal Commission, 2020). Low economic activity results in lower levels of income, increased poverty and unemployment and makes it difficult for households to prioritise the payment of property rates. The Commission also found that in some cases consumers were unwilling to pay because of dissatisfaction with service provision, inaccurate billing, and lack of awareness campaigns about the importance of paying for property rates.

The University of the Free State's Centre for Development Support conducted a survey that included 1,600 households across 32 rural and urban localities in South Africa to examine the reasons for non-payment (CDS, 2001, cited in Fjeldstad, 2004). The study found that non-payment is mainly an issue of inability to pay. The study argued that the poverty of households makes them unable as opposed to unwilling to pay for services. However, an earlier survey carried out by the Hellen Suzman Foundation found that widespread non-payment exists as a result of an 'entitlement culture', and 'culture of non-payment' passed down from the apartheid era (Johnson, 1999, cited in Fjeldstad, 2004). Fjeldstad (2004) noted that for both surveys, big differences in payment levels occur both within communities and between communities that have similar socio economic features, including income levels.

Thus, Fjeldstad (2004) argues that the issue of non-payment is more complex and is only partly explained by the ability to pay argument and the culture of non-payment. Fjeldstad (2004) posits that trust relations between the government and society and within local communities may influence payment behaviour, specifically trust that municipalities will use revenues for the provision of services, trust that other citizens pay their share for services, and trust that the distribution of services and procedures for revenue enforcement will be fairly and reasonably established.

Revenue enforcement procedures, such as service cut-offs, are implemented to ensure that there are penalties for non-payment. Service cut-offs are a significant enforcement mechanism that have been applied in several municipalities across the country. As noted by Fjeldstad (2004), although such penalties are expected to result in higher levels of compliance, experiences from municipalities across the country prove otherwise, indicating that the harsher the penalty the more widespread the unwillingness to pay. In addition to enforcement mechanisms, Fjeldstad (2004) argues that payment behaviour may be impacted by social influences such as



the belief that other people close to an individual i.e., neighbours, family, friends, and political associates pay for services. Fjeldstad (2004) further argues that payment behaviour may also be influenced by the level of support for the government, specifically stating that “widespread support tends to legitimise the public sector and may thus impose some social norm to pay rates” (Fjeldstad, 2004).

A study by Van Schalkwyk (2012) examined the reasons for non-payment in the Vhembe District Municipality in Limpopo. The study included a sample of households in the Thulamela and Mutale municipalities. The results revealed that 38 per cent of households did not pay for services. However, only 8 per cent of respondents believed that services were completely unaffordable. Despite the large proportion of respondents who believed that services were at least affordable, the percentage of households that did not pay for services was still relatively high, which indicates that other factors explain the issue of non-payment. These factors include widespread dissatisfaction with the quality of services provided, as well as the misconception that it is the government’s duty to provide and pay for services (Van Schalkwyk, 2012).

Worku (2018) assessed the reasons for non-payment for households in Madibeng, Mamelodi, and Soshanguve. The study found that 22 per cent of households in Soshanguve, 46 per cent of households in Mamelodi, and 78 per cent of households in Madibeng were unwilling to pay for services. Unwillingness to pay was found to be largely influenced by the lack of awareness campaigns by municipal officials to educate households about the importance of paying for services, the culture of non-payment, and the false belief that payment for services is unimportant. The study also found that defaulters believed that they did not have to pay for poor and inadequate services. An interesting observation of the study is that while households in Madibeng and Mamelodi had similar socioeconomic characteristics, their willingness to pay for services varied significantly.

The table below shows the highest level of education, average monthly household income, and employment status of the household head for households included in the Worku (2018) study. Despite the similarities in these variables, only 22 per cent of the 167 households sampled in Madibeng were willing to pay for services, while 54 per cent of the 120 households in Mamelodi were willing to pay for services. Given that both municipalities have very similar socioeconomic characteristics, the results suggest that the issue of non-payment is more complex and is only partly explained by the ability to pay argument.

Table 6.1: Characteristics of respondents

Characteristics of respondents	Madibeng (sample = 167)	Mamelodi (sample = 120)
Willingness to pay for municipal services	Yes: 22per cent	Yes: 54per cent
	No: 78per cent	No: 46per cent
Highest level of education	Matric or less: 7per cent	Matric or less: 9per cent
	Certificate: 30per cent	Certificate: 29per cent
	Diploma: 31per cent	Diploma: 30per cent
	Bachelor's degree: 24per cent	Bachelor's degree: 25per cent
	Master's or more: 8per cent	Master's or more: 7per cent
Average monthly household income	R3 500 or less: 39per cent	R3 500 or less: 38per cent
	R3 501 to R7 000: 33per cent	R3 501 to R7 000: 36per cent
	R7 001 or more: 28per cent	R7 001 or more: 26per cent
Employment status of household head	Full time employed: 12per cent	Full time employed: 11per cent
	Part-time employed: 23per cent	Part-time employed: 24per cent
	Self-employed: 38per cent	Self-employed: 39per cent
	Not employed: 27per cent	Not employed: 26per cent

Source: Adapted from Worku (2018: 104)

A more recent study by Enwereji and Uwizeyimana (2020) found that non-payment can be explained by various reasons including lack of payment enforcement, lack of implementation of credit policies, inadequate service provision, corruption, and the mismanagement of public funds by municipal officials. The authors noted that households boycott paying for services due to dissatisfaction with the quality of services provided. Payment boycotts intend to influence service providers to improve service delivery. Additionally, the mismanagement of public funds by municipal role-players was regarded as another contributing factor influencing payment default. The perception that municipal financial administration is poorly managed may result in residents boycotting the payment for services due to the perceived mismanagement (Enwereji & Uwizeyimana, 2020).

Concerning the implementation of enforcement and credit control policies, Powell et al. (2010, cited in Enwereji and Uwizeyimana, 2020) and Enwereji (2018, cited in Enwereji and Uwizeyimana, 2020) note that many municipalities have failed to apply legislative provisions contained in various prescripts such as the Municipal Property Rates Act (6 of 2004), Municipal Systems Act (32 of 2000), Water Service Act (108 of 1997), Municipal Structures Act (117 of 1998), Municipal Finance Management Act (56 of 2003), Municipal Fiscal Powers and Functions Act (12 of 2007), and other municipal service provision by-laws to enforce payment from residents. Enwereji and Uwizeyimana (2020) also found that discrepancies in billing and the absence of an appeal system to follow up on billing discrepancies may discourage residents from paying for services.

The culture of non-payment or entitlement is another reason noted to impact non-payment (Enwereji & Uwizeyimana, 2020). It is a commonly held view that the culture of non-payment originated in resistance to the apartheid struggle (Enwereji & Uwizeyimana, 2020; Fjeldstad, 2004; Enwereji & Potgieter, 2018). During the regime, the provision of equitable municipal services was primarily focused on white-dominated areas. As part of the struggle against the regime, residents in mainly black-dominated areas, civic associations, and civil organisations boycotted the payment of municipal service charges. These boycotts were by means of protests which later turned into a culture of non-payment (Fjeldstad, 2004).

As noted by Enwereji and Potgieter (2018), the culture of non-payment in black-dominated areas became entrenched in the perceptions of citizens to the point that it became a challenge for citizens to change their attitudes about paying for services when democratic governance emerged. Currently, reversing the culture of non-payment continues to be a challenge for municipalities across South Africa. This is evidenced by

the widespread non-payment for electricity in Soweto, resulting in the municipality owing billions to Eskom (Enwereji & Potgieter, 2018).

Regarding the ability to pay argument, Enwereji and Potgieter (2018) found that the inability to pay is not significant in explaining the issue of non-payment. This is evidenced by consumers' ability to pay for discretionary expenses, such as DSTV, clothing accounts, and car instalments, as opposed to paying for municipal bills (Mabunda & Holeni, 2017). Enwereji and Uwizeyimana (2020) conducted a study looking at the main causes for non-payment across four district municipalities in the North-West province.

The study included a sample of 384 residents and found that although most residents in the study earned at least R21 000 monthly income, suggesting that they can pay for municipal services, almost 30 per cent of the respondents admitted to not paying for municipal services, and 40 per cent admitted to defaulting at intervals in paying for services. Enwereji and Uwizeyimana (2020) also found that some residents falsely claim to be indigent, while residents that are considered indigent do not report their indigency status to municipalities.

It is important to note the role that councillors play in enhancing a culture of payment for municipal services (Fjeldstad, 2004; Enwereji, 2019; Enwereji & Uwizeyimana, 2020). Councillors are elected to represent their constituencies and act as a communication link between communities and the municipality. In addition to serving as a communication link, their roles include informing the public about the various plans or programmes being undertaken by the municipality to increase transparency and promote public participation, communicating the needs of communities within the council, ensuring the efficiency and fairness of municipal service provision, and monitoring progress on planned capital projects (SALGA & GIZ, 2006).

Enwereji & Uwizeyimana (2020) corroborate the significant role played by councillors in influencing residents' willingness to pay for services. Based on a qualitative analysis focusing on communities in the North West Province, they found that municipal officials assign blame for non-payment to councillors. In particular, officials claimed that councillors protect their ward members from paying for services. On the other hand, councillors alleged that officials do not communicate with them about engaging residents. Thus, to improve payment compliance, Enwereji & Uwizeyimana (2020) recommend that officials should collaborate with councillors to increase residents' awareness about the importance of paying for services.

Based on the literature, providing adequate municipal services, applying revenue enforcement and credit control mechanisms, managing municipal finances efficiently and competently, improving billing and accounting systems, and communicating to residents about the importance of paying for services through councillors and awareness campaigns encourages payment for services. Furthermore, payment could also improve if municipal call centres are prompt in addressing complaints and faults reported regarding service delivery interruptions. This would build citizens' trust in the efficiency of municipal processes. A significant challenge in overcoming the issue of non-payment is to deal with residents' mistrust towards municipalities (Fjeldstad, 2004). Thus, the prompt response to such queries would assist in convincing citizens that municipalities take their service delivery mandate seriously.

6.2.4 Affordability of municipal services

The White Paper on Local Government highlighted the importance of affordable services to achieve the objective of universal access and to ensure that municipalities would recover the costs of providing services. As previously noted, unaffordable tariffs may impact the ability of customers to pay for services and may negatively affect revenue collection. For non-domestic customers such as commercial and industrial customers, unaffordable tariffs could also discourage local economic growth by increasing costs and impacting the sustainability of businesses. Marah et al. (2003) note that as tariff levels increase, affordability may decrease, which may negatively impact cost recovery. Therefore, tariff levels and affordability are important to consider for cost recovery.

6.2.5 Defining affordability

Affordability is dependent on a consumer's ability and willingness to pay for services (Walsh, Shai, & Mbangata, 2019). Ability to pay measures whether a consumer can consume services given current prices and budget constraints. Thus, the amount of a service consumed is restricted by the income available to the consumer. On the other hand, willingness to pay measures the maximum amount a consumer is willing to sacrifice to receive a service and relates to a consumer's preferences and the acceptability of prices (Walsh, Shai, & Mbangata, 2019).

The most common measure of affordability, from an 'ability-to-pay' point of view, is an affordability ratio that indicates the percentage of household income spent on municipal services. The affordability ratio is measured against a predetermined threshold. If the ratio is below the threshold, tariffs are regarded as affordable. Whereas ratios above the threshold are considered unaffordable.

6.3 PROBLEM STATEMENT AND RESEARCH QUESTIONS

Problem statement

Rising municipal consumer debt levels pose a threat to the financial viability of municipalities and impact their ability to provide services sustainably. As a result of the high municipal consumer debt levels, many municipalities struggle to recover the costs of providing services. Without recovering the costs of providing services, municipalities may not have the funds necessary to maintain and invest in new infrastructure for future service provision.

A significant reason a municipality may have challenges in achieving cost recovery is due to widespread non-payment. Various reasons explain the issue of non-payment, including the unaffordability of services or the inability of customers to pay for services. If tariff levels are too high, this negatively impacts the affordability of services, which in turn adversely affects cost recovery (Marah, Martin, Alence, & Boberg, 2003). Thus, the link between cost recovery and affordability is important to consider.

6.4 RESEARCH AIMS AND OBJECTIVES

The main objective of this paper is to assess the extent to which municipalities recover the costs of providing services and the relationship between cost recovery and the affordability of services. A secondary objective is to examine whether a municipality's socio economic profile affects cost recovery outcomes. The research findings will be used to make recommendations regarding cost recovery and the affordability of services.

6.5 RESEARCH METHODOLOGY AND DATA

This research contributes to an understanding of whether municipalities recover the costs of service provision and the relationship between cost recovery and affordability using a sample of South African municipalities.

6.5.1 Municipal selection

Municipalities in South Africa are categorised (described in detail below) according to factors such as the size of their budgets, geographical location, and function. Random samples were selected from each municipal category.

The overall dataset consists of a sample of 88 municipalities of different categories across all nine provinces, representing approximately 34 per cent of the total number of municipalities in South Africa. Note that due to data availability and credibility constraints, provinces are not evenly represented in each of the municipal categories. Therefore, some provinces are more broadly represented within municipal categories compared to others. The table below shows the number of municipalities within each municipal category and province.

Table 6.2: Number of municipalities within each municipal category and province

	A	B1	B2	B3	B4	Total	
EC	2	0	2	4	2	10	11%
FS	1	1	3	6	0	11	13%
GT	3	1	3	1	0	8	9%
KZN	1	3	0	2	2	8	9%
LIM	0	1	1	3	1	6	7%
MP	0	3	1	0	4	8	9%
NC	0	1	1	5	0	7	8%
NW	0	3	1	7	0	11	13%
WC	1	3	3	12	0	19	22%
Total	8	16	15	40	9	88	
	9%	18%	17%	45%	10%		

Source: Commission calculations

Municipalities in South Africa are broadly categorised into three categories: category A (metropolitan areas), category B (local), and category C (district) municipalities (Municipal Demarcation Board, 2018). Further classifications are provided by the Municipal Infrastructure Investment Framework (MIIF) classification, which subdivides category B municipalities into four groups, from B1 to B4, consisting of larger municipalities that exercise more powers and smaller municipalities that have less resources and power (Municipal Demarcation Board, 2018). Category C municipalities or districts are divided into two subgroups consisting of those that are water authorities and those that are not.

District municipalities, categories C1 and C2, were excluded from the analysis due to the unavailability and reliability of the data reported in the Municipal Budget Reporting & Regulation (MBRR) schedules. Furthermore, districts differ from other municipal categories in terms of their function making them less comparable to other municipal categories.

6.5.2 Cost recovery

6.5.2.1 Cost reflectiveness of each service

Cost recovery is firstly assessed by analysing the cost reflectiveness of each service in each municipality. Cost reflectiveness is measured by calculating the cost coverage percentage for the respective service in each municipality. The cost coverage percentage is calculated using the formula below:

$$\text{Cost coverage percentage} = \frac{(\text{Service charge revenue} - \text{Expenditure} + \text{LGES allocation})}{\text{Expenditure}} \times 100$$

Service charge revenue is the revenue generated from tariffs less subsidies provided to the municipality. Expenditure is the total amount spent for each trading service including expenditure on free basic services. The Local Government Equitable Share (LGES) allocation is added to account for the cost of providing free basic services to poor households. It should be noted that this method of calculating cost coverage does not provide a full account of the cost reflectiveness of tariffs due to the absence of secondary costs associated with the provision of services. These secondary costs include governance and administration costs.

The municipal finance data used to calculate the cost coverage percentages is from the MBRR schedules described above.

6.5.2.2 Affordability

The analysis assesses the correlation between cost recovery and the affordability of household municipal bills. To measure the affordability of municipal services, the analysis follows the South African Cities Network and other studies by comparing the municipal bill for each service against household income in each municipality (SACN, 2020; Walsh, Shai, & Mbangata, 2019). Data on municipal bills is from Table SA14 of the MBRR schedules. Table SA14 includes three types of municipal household bills: bills for middle-income households, the affordable range of bills, and bills for indigent households. These bills are based on assumptions regarding property value and household consumption levels for electricity and water. The property value and consumption thresholds for each type of bill are shown in the table below.

Table 6.3: Property value thresholds and service consumption levels for each municipal account

Description	Property value threshold	Electricity threshold	Water threshold
Monthly account - Middle Income range	R700 000	1 000 kWh	30 kl
Monthly account - Affordable range	Between R500 000 and R700 000	500 kWh	25 kl
Monthly account - Indigent household	R300 000	350 kWh (50 kWh free)	20 kl

Source: Based on MBRR schedule SA14

Given the South African context, characterised by high levels of poverty and unemployment, the analysis considers the affordable range of bills and bills for indigent households as the basis for the affordability calculations.

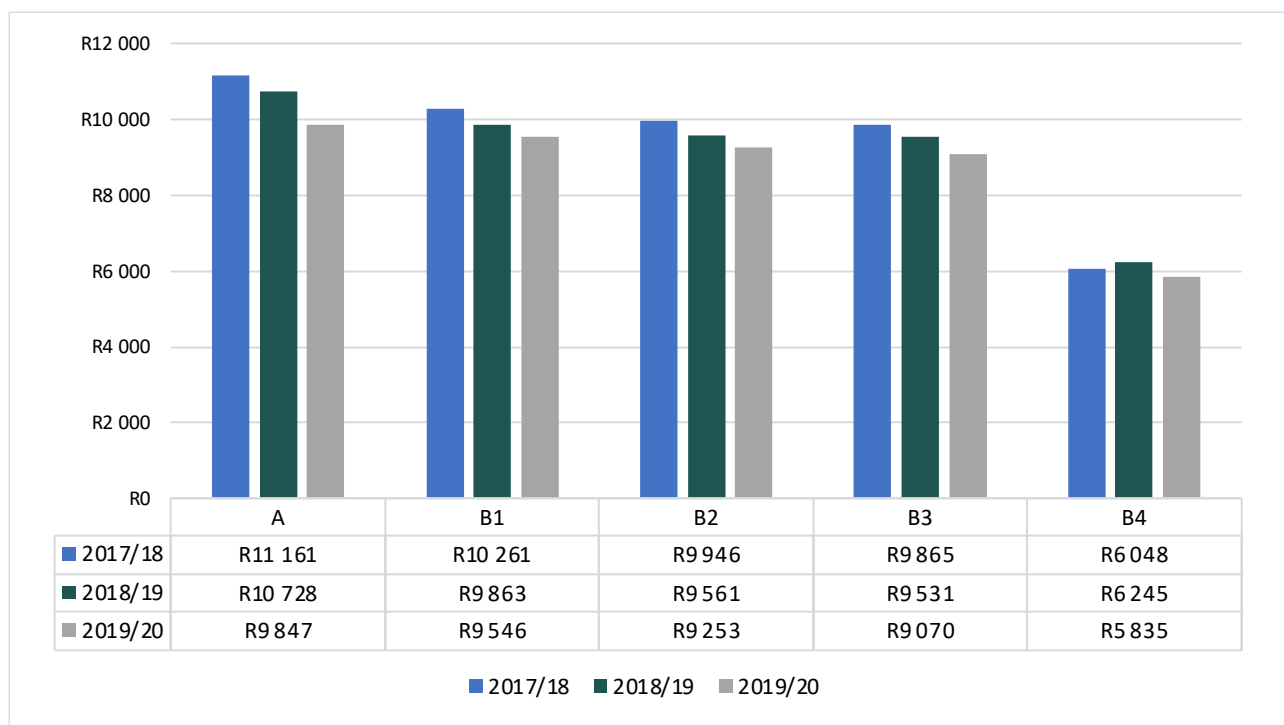
6.5.2.3 Income

Median household income

Data on household incomes at the municipal level post the 2011 Census is unavailable. In the absence of better data, household income estimates are obtained from the IHS Markit Regional eXplorer (ReX). ReX provides estimates of the municipal household distribution across income categories. The annual household income brackets were divided by 12 to obtain monthly incomes. The midpoints of each income bracket were calculated and the midpoint with the highest frequency of households is assumed to be the median income for the respective municipality.

The median incomes were adjusted by inflation to obtain the real incomes for each period, 2017/18 to 2019/20. The figure below shows the calculated real median household incomes per municipal category. As shown, on average metropolitan municipalities have the highest median household incomes, followed by categories B1, B2, and B3, while category B4 municipalities have the lowest. Real median incomes in all municipal categories were lower in 2019/20 due to the impact of COVID-19 on household incomes.

Figure 6.1: Real median household incomes per municipal category



Source: IHS Markit ReX and Commission's calculations

Indigent household income

For indigent households, income for each municipality is taken as the combined income of less than two old age grants, based on the National Treasury Indigent Policy. Note that in practice municipalities have discretion in determining the income threshold for households qualifying as indigent.

6.5 ASSESSING THE LINK BETWEEN COST RECOVERY AND AFFORDABILITY

The relationship between cost recovery and affordability for each service is analysed using correlation analysis. Correlation analysis measures the extent and direction of an association between two variables (Gogtay & Thatte, 2017). The outcome of a correlation analysis is the correlation coefficient (*r*). The value of the correlation coefficient ranges from -1 to +1. A coefficient of -1 indicates a perfect negative relationship, a value of +1 indicates a perfect positive relationship, while a value of zero means that there is no association between the two variables. The table below provides an example of a standard approach to interpreting correlation coefficients (Schober, Boer, & Schwarte, 2018).

Table 6.4: Example of a standard approach to interpreting correlation coefficients

Absolute value of correlation coefficients	Interpretation
0.00-0.10	Negligible correlation
0.10-0.39	Weak correlation
0.40-0.69	Moderate correlation
0.70-0.89	Strong correlation
0.90-1.00	Very strong correlation

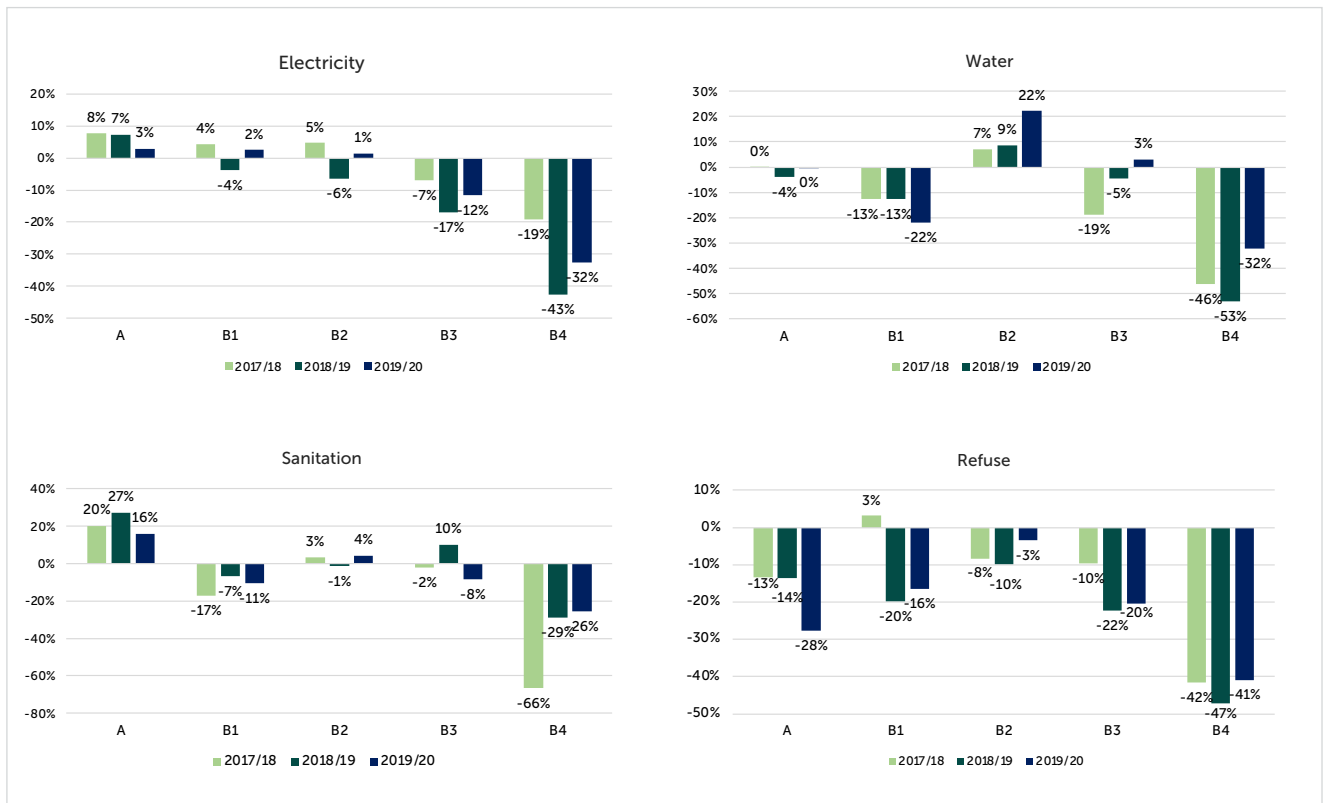
Source: Schober, Boer, & Schwarte (2018)

6.6 RESULTS

6.6.1 Cost coverage

The average cost coverage percentages for each service and each municipal category are shown in the figure below.

Figure 6.2: Average cost coverage percentages for each service and municipal category



Source: Commission's calculations

Electricity

On average, excluding outliers, category A municipalities generated surpluses and had the highest coverage levels for electricity followed by category B1 and B2 municipalities, while B3 and B4 municipalities did not recover electricity costs. In terms of category A, Buffalo City experienced a decline in electricity revenue in 2018/19 due to loadshedding, the movement by more affluent consumers to off-grid alternative energy sources, and the increase in meter tampering and illegal connections (Buffalo City, 2018/19). Municipalities are likely to see more customers shifting to alternative energy sources due to intensified loadshedding.

The low electricity coverage levels across municipal categories in 2019/20 can be explained by the decrease in revenue collection in the last quarter of 2019/20 due to the COVID-19 pandemic (National Treasury, 2020).

As a result of the economic difficulties caused by COVID-19, municipalities experienced significant challenges in collecting revenue from households. Traditional revenue sources were adversely affected by the impact that the economic contraction had on household disposable income and the ability of consumers to pay for municipal services. Additionally, municipal expenditures increased for the provision of indigent support and relief measures to customers. Electricity coverage levels are likely to be impacted by heightened loadshedding and the 2023/24 Eskom tariff increases approved by NERSA.

Water and sanitation

For water services, on average municipalities in category B2 had the highest coverage levels, while those in category B4 had the lowest. For category A, eThekweni experienced decreases in water and sanitation revenues in 2017/18 due to the drought in KwaZulu Natal (eThekweni, 2017/18). Buffalo City experienced a decline in water revenue in 2018/19 due to challenges in meter reading in areas affected by community unrest (Buffalo City, 2018/19). Water and sanitation revenues were impacted by COVID-19 in 2019/20, which affected the ability of municipalities to read meters and bill consumers (National Treasury, 2020). In terms of sanitation, category A municipalities had the highest coverage levels.

The low coverage levels for electricity, water, and sanitation are concerning given that historically municipalities, particularly larger municipalities, typically generated surpluses on these services which enabled them to cross-subsidise some of their services. This is also concerning as the analysis does not include the secondary costs associated with these services such as governance and administration costs.

Refuse

For refuse services, on average, municipalities in all four categories generated deficits and did not recover costs for refuse services. This could be due to cross-subsidisation between trading services, where municipalities generate surpluses on some services, such as electricity and water, while accepting deficits on others. The surplus generated from a service can then be used to cover the deficit accepted on another service. As previously explained, through cross-subsidisation, tariffs levied on some services or customer categories will be lower than the cost of providing the service, while tariffs levied on other services or customer categories will be above cost. The low coverage levels for refuse services could also be due to the introduction of new legislation which led to increased costs for refuse services.

The variance in cost coverage levels across municipal categories can be explained by their difference in revenue-raising capabilities. The low average coverage levels, particularly for municipalities in categories B3 and B4, can be explained by their adverse socioeconomic conditions. These municipalities often have a larger share of their population living in poverty (Oosthuizen & Thornhill, 2017). As a result, these municipalities are heavily reliant on grants, such as the LGES, to provide services as they have lower tax bases compared to larger municipalities. Nonetheless, the low coverage levels can also be explained by widespread non-payment, internal municipal inefficiencies such as incorrect or poor billing systems, and failure to implement and enforce credit control and debt collection policies.

6.6.2 Correlation results

Cost coverage and affordability

The relationship between cost coverage and the affordability of municipal household bills is assessed using correlation analysis. The table below shows the correlation results per service for two types of bills: the affordable range, and bills for indigent households. For the affordable range of bills, median incomes were used to assess affordability, which is calculated by dividing the municipal bill for each service against the median household income per municipality. For indigent households, affordability is calculated by dividing the indigent bill for each service by the National Treasury threshold of a combined income of less than two old age grants.

Table 6.5: Correlation between cost coverage and affordability

	2017/18	2018/19	2019/20
Affordable range bill per service			
Electricity	- 0.27 **	- 0.25 **	- 0.11
Water	- 0.02	- 0.25 *	- 0.05
Sanitation	- 0.07	- 0.02	- 0.13
Refuse	0.07	0.05	0.21
Indigent bill per service			
Electricity	- 0.07	- 0.21 *	- 0.23
Water	- 0.08	- 0.20	- 0.30 *
Sanitation	0.06	- 0.06	- 0.22
Refuse	- 0.02	- 0.07	- 0.13

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Commission's calculations

As shown in the table above, most of the correlation coefficients are negative, however, the magnitude of the relationship between cost coverage and affordability for the respective services is generally weak and, in some cases, negligible. The negative sign of the coefficients suggests that on average municipalities that have more affordable bills, or lower bills as a percentage of income, tend to have higher cost coverage levels. This is consistent for both the affordable range of bills, as well as bills for indigent households. This supports the argument that if tariff levels are too high, customers will not be able to afford services which adversely impacts cost recovery.

For electricity and water specifically, some of the coefficients are significant at the five per cent and ten per cent levels of significance. Interestingly, for refuse services the direction of the relationship for the affordable range of bills is positive, suggesting that municipalities with higher refuse bills as a percentage of income, tend to have higher coverage levels. This result could be due to cross-subsidisation between trading services, where municipalities generate surpluses on some services, such as electricity and water while accepting deficits on others. As shown in the cost coverage results, on average all municipal categories generated deficits for refuse services, which may suggest that refuse tariffs are lower than the cost of providing the service. However, the correlation coefficients for refuse services are not statistically significant.

Overall, the results suggest that on average municipalities that have more affordable municipal household bills i.e., lower bills as a percentage of income, tend to have higher cost coverage levels, particularly for electricity, water, and sanitation services. However, it is important to note that the strength of the relationship between cost coverage and affordability across services is generally weak. This could be due to the quality of the data or sample size, but it also suggests that other factors play a greater role in explaining cost recovery outcomes. These results confirm that cost coverage levels are only partly explained by the ability to pay argument.

Cost coverage and socioeconomic characteristics

A municipality's socioeconomic characteristics may also affect the extent to which it can recover the costs of service provision. Thus, the analysis also considered the correlation between cost coverage for each service and various socioeconomic variables including median household income, GDP per capita, and the municipal unemployment rate. Data for each of the socioeconomic variables were obtained from the IHS Markit Regional eXplorer (ReX).

Table 6.6 shows the correlation coefficients for median income, GDP per capita and unemployment.

Table 6.6: Correlation between cost coverage and socioeconomic characteristics

	2017/18	2018/19	2019/20
Median income			
Electricity	0.33 ***	0.37 ***	0.27 **
Water	0.38 ***	0.25 **	0.04
Sanitation	0.30 **	0.24 **	0.21 *
Refuse	0.20 *	0.28 ***	0.14
GDP per capita (constant 2015 prices)			
Electricity	0.29 **	0.33 ***	0.24 **
Water	0.31 ***	0.18	0.07
Sanitation	0.26 **	0.04	0.15
Refuse	0.12	0.14	0.13
Unemployment			
Electricity	- 0.28 **	- 0.36 ***	- 0.29 ***
Water	- 0.29 ***	- 0.35 ***	- 0.18
Sanitation	- 0.31 ***	0.02	- 0.11
Refuse	- 0.19	- 0.21 *	- 0.22 *

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Source: Commission's calculations

For median income, all the correlation coefficients are positive, suggesting that municipalities with higher median household incomes tend to have higher cost coverage levels. The correlation coefficients for GDP per capita are also positive, which indicates that on average municipalities with higher GDP per capita tend to have higher cost coverage levels for each service. This is in line with the study by Huenteler et al. (2022) who found that cost recovery is higher in countries with higher GDP per capita. For unemployment, the relationship is negative, suggesting that municipalities with higher unemployment levels tend to have lower cost coverage levels. These results highlight the importance of considering a municipality's socioeconomic profile when assessing cost recovery.

6.7 CONCLUSION

The paper assesses the extent to which municipalities recover the costs of service provision and the relationship between cost recovery and the affordability of services. Municipal cost recovery is important for the sustainability and maintenance of services and is an important indicator of the overall financial health of municipalities.

However, most municipalities are still far from recovering the costs of service provision. It is argued that municipalities may struggle to recover costs due to tariffs being unaffordable (National Treasury, n.d.). If tariffs are too high, affordability will decrease, which may adversely impact cost recovery. Recently, affordability has been impacted by high inflation because of the global supply chain disruptions caused by the COVID-19 pandemic and the Russia-Ukraine conflict. These economic shocks have increased the cost of living and exacerbated poverty levels.

The results suggest that on average municipalities struggle to recover the costs of providing services. Using average cost coverage percentages for each service and each municipal category between 2017/18 and 2019/20, the findings indicate that on average category A municipalities consistently generated surpluses and had the highest coverage levels for electricity, categories B1 and B2 generated surpluses in some years, while municipalities in categories B3 and B4 did not recover electricity costs.

For water services, on average municipalities in category B2 had the highest coverage levels, while other municipal categories did not recover water services costs. In terms of sanitation, category A municipalities had the highest coverage levels followed by municipalities in categories B2 and B3, and category B1 and B4 municipalities did not recover sanitation costs.

For refuse services, on average, municipalities in all four categories generated deficits and did not recover refuse costs. The low coverage levels across services in 2019/20 can be explained by the decrease in revenue collection in the last quarter of 2019/20 due to the COVID-19 pandemic (National Treasury, 2020). Municipalities experienced significant challenges in collecting revenue from households because of the economic difficulties caused by COVID-19.

Using correlation analysis, the paper assessed the relationship between cost recovery and the affordability of services and found that on average for electricity, water, and sanitation, municipalities that have more affordable municipal bills i.e., lower bills as a percentage of income, tend to have higher cost coverage levels. However, the strength of the relationship between cost coverage and affordability across services is generally weak. These results confirm that cost coverage levels are only partly explained by the ability to pay argument. As noted in the literature, various reasons explain the issue of non-payment, which affects a municipality's ability to recover the costs of providing services. Non-payment is heavily influenced by the culture of non-payment or entitlement, dissatisfaction with service provision, the absence of awareness campaigns to educate households about the importance of paying for municipal services, the perception that municipal officials are corrupt and mismanage municipal finances, poor governance, and maladministration of municipal officials, and the lack of collaboration between councillors and municipal officials. Furthermore, non-payment may also be influenced by trust relations between municipalities and society.

To improve payment for services, municipalities should provide adequate services, apply revenue enforcement and credit control mechanisms, manage municipal finances competently and efficiently, improve billing and accounting systems, and communicate to residents about the importance of paying for services. Moreover, municipal call centres should promptly address complaints reported regarding service delivery interruptions to build citizens' trust towards the efficiency of municipal processes.

6.8 RECOMMENDATIONS

The Commission makes the following Recommendations:

1. *National Treasury, in consultation with SALGA, CoGTA, and provincial governments should urge local municipalities to apply effective revenue enforcement and credit control mechanisms and improve billing and accounting systems to increase payment and cost coverage levels. Officials responsible for managing municipal finances should possess the competencies and skills required to perform their roles. In addition, municipalities should apply the prescripts of various legislation such as the Municipal Systems Act, Municipal Property Rates Act, Municipal Structures Act, MFMA, and other municipal service provision by-laws to enforce payment from residents.*

The literature notes that municipalities can improve payment and cost coverage levels by improving technical efficiencies such as applying effective revenue enforcement and credit control mechanisms and improving billing and accounting systems. Payment for municipal services can also improve if councillors engage residents about the importance of paying for services. In addition, municipal call centres should be prompt in addressing complaints and faults regarding service delivery interruptions. A significant challenge in overcoming the issue of non-payment is to deal with residents' mistrust towards municipalities. Promptly addressing complaints would assist in building residents' trust towards the

efficiency of municipal processes. The prompt response to such queries would assist in convincing citizens that municipalities take their service delivery mandate seriously.

2. *CoGTA, in consultation with SALGA, should ensure that the credit control systems of Eskom and municipalities are aligned by means of a memorandum of understanding (MOU), and that Eskom should assist municipalities with credit control via electricity disconnections within areas supplied by Eskom. This is a reiteration of a previous recommendation.*

A key issue noted is the difficulty that municipalities have enforcing payment in areas supplied by Eskom due to the absence of enforcement mechanisms in those areas and the unwillingness of Eskom to assist municipalities with disconnections. The impact of this is that even if a municipality has an effective credit control policy in place, it cannot be implemented if the municipality is not in charge of the enforcement mechanism. Thus, service delivery agreements between Eskom and municipalities, in terms of the Municipal Structures Act, would enable municipalities to use electricity as a credit control mechanism.

3. *The Commission recommends that COGTA should engage SALGA about incorporating innovative approaches in the "Asisho! Let's Say it" campaign to increase awareness about the importance of paying for municipal services. In addition to using television to disseminate the message, other forms of media such as national and community radio stations, billboards, sending prompts via WhatsApp, SMS, and email, and inserts in newspapers should be used to reach a wider audience.*

As noted in the literature review, non-payment is heavily influenced by the absence of awareness campaigns to educate households about the importance of paying for municipal services. To address this, SALGA launched the nationwide "Asisho! Let's Say It" campaign in 2022 which is aimed at educating residents about paying for municipal services. The campaign currently includes a television programme to disseminate the message and engage local communities. The Commission recommends that SALGA should incorporate additional forms of media in the campaign to increase awareness. In addition, SALGA should urge municipal officials to collaborate with councillors to ensure that the payment culture is enhanced.

4. *The Commission recommends that the National Treasury should urge municipalities to assess the affordability of the total municipal bill as part of the municipal tariff setting process. This can be done using the tariff setting tool developed by National Treasury, which includes a component for testing the affordability of tariffs to customers*

The analysis found that on average for electricity, water, and sanitation, municipalities that have more affordable municipal bills tend to have higher cost coverage levels. Although the correlation between cost coverage and affordability was found to be weak, the results support the argument that if tariff levels are too high, customers may not be able to pay for services which may adversely impact cost recovery outcomes. National Treasury developed a tariff-setting tool to assist municipalities to set cost-reflective tariffs for water, sanitation, electricity, and refuse removal. The tool includes a component for testing the affordability of tariffs. The Commission recommends that testing the affordability of the total municipal bill should be part of the tariff-setting process.

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